

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Diamond Shamrock Refining Company, L.P.

AUTHORIZING THE OPERATION OF
Valero McKee Refinery
Petroleum Refineries

LOCATED AT
Moore County, Texas
Latitude 35° 56' 54" Longitude 101° 53' 30"
Regulated Entity Number: RN100210517

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O1555 Issuance Date: _____

For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
 - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
 - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
 - E. Emission units subject to 40 CFR Part 63, Subparts CC, UUU, EEEE, ZZZZ, DDDDD, and GGGGG as identified in the attached Applicable Requirements Summary table are

subject to 30 TAC Chapter 113, Subchapter C, §§ 113.340, 113.780, 113.880, 113.1090, 113.1130, and 113.1160 which incorporates the 40 CFR Part 63 Subparts by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
 - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
 - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
 - I. Title 30 TAC § 101.222 (relating to Demonstrations)
 - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
 - A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
 - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(1)(E)
 - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
 - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that

does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

- (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
- (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is

determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
 - (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
 - (4) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the

applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)

- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- C. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- D. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- E. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- F. Outdoor burning, as stated in 30 TAC § 111.201, shall not be authorized unless the following requirements are satisfied:
 - (i) Title 30 TAC § 111.205 (relating to Exception for Fire Training)
 - (ii) Title 30 TAC § 111.207 (relating to Exception for Recreation, Ceremony, Cooking, and Warmth)
 - (iii) Title 30 TAC § 111.219 (relating to General Requirements for Allowable Outdoor Burning)
 - (iv) Title 30 TAC § 111.221 (relating to Responsibility for Consequences of Outdoor Burning)

4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
 - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
 - B. Title 40 CFR § 60.8 (relating to Performance Tests)
 - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - D. Title 40 CFR § 60.12 (relating to Circumvention)
 - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - F. Title 40 CFR § 60.14 (relating to Modification)
 - G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
5. For petroleum refinery facilities subject to 40 CFR Part 60, Subpart QQQ, the permit holder shall comply with the following requirements:
 - A. Title 40 CFR § 60.692-1(a) - (c) (relating to Standards: General)
 - B. Title 40 CFR § 60.692-2(a) - (c), (e) (relating to Standards: Individual Drain Systems)
 - C. Title 40 CFR § 60.692-6(a) - (b) (relating to Standards: Delay of Repair)
 - D. Title 40 CFR § 60.692-7(a) - (b) (relating to Standards: Delay of Compliance)
 - E. Title 40 CFR § 60.693-1(a) - (d), (e)(1) - (3) (relating to Alternative Standards for Individual Drain Systems)
 - F. Title 40 CFR § 60.697(a), (b)(1) - (3) (relating to Recordkeeping Requirements), as applicable to Individual Drain Systems
 - G. Title 40 CFR § 60.697(f)(1) - (2), (g) (relating to Recordkeeping Requirements), as applicable to Individual Drain Systems
 - H. Title 40 CFR § 60.697(h) (relating to Recordkeeping Requirements), as applicable to excluded Stormwater Sewer Systems
 - I. Title 40 CFR § 60.697(i) (relating to Recordkeeping Requirements), as applicable to excluded Ancillary Equipment
 - J. Title 40 CFR § 60.697(j) (relating to Recordkeeping Requirements), as applicable to excluded Non-contact Cooling Water Systems
 - K. Title 40 CFR § 60.698(a), and (b)(1) (relating to Reporting Requirements), as applicable to Individual Drain Systems
 - L. Title 40 CFR § 60.698(c) (relating to Reporting Requirements), for water seal breaches in Drain Systems

- M. Title 40 CFR § 60.698(e) (relating to Reporting Requirements), as applicable to Individual Drain Systems
6. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 61.05 (relating to Prohibited Activities)
 - B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)
 - C. Title 40 CFR § 61.09 (relating to Notification of Start-up)
 - D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)
 - E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)
 - F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)
 - G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)
 - H. Title 40 CFR § 61.15 (relating to Modification)
 - I. Title 40 CFR § 61.19 (relating to Circumvention)
7. For the benzene transfer operations to and from railcars and tank trucks specified in 40 CFR Part 61, Subpart BB, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.302(d) (relating to Standards)
 - B. Title 40 CFR § 61.305(g) - (h) (relating to Reporting and Recordkeeping)
8. For facilities where total annual benzene quantity from waste is greater than or equal to 10 megagrams per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.342(c)(1)(i) - (iii) (relating to Standards: General)
 - B. Title 40 CFR § 61.342(e)(1) (relating to Standards: General)
 - C. Title 40 CFR § 61.342(e)(2)(i) - (ii) (relating to Standards: General)
 - D. Title 40 CFR § 61.342(f)(1), and (2) (relating to Standards: General)
 - E. Title 40 CFR § 61.342(g) (relating to Standards: General)
 - F. Title 40 CFR § 61.350(a) and (b) (relating to Standards: Delay of Repair)
 - G. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions)
 - H. Title 40 CFR § 61.355(k)(1) - (6), and (7)(i) - (iv) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures
 - I. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)

- J. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)
 - K. Title 40 CFR § 61.356(b)(4) (relating to Recordkeeping Requirements)
 - L. Title 40 CFR § 61.356(b)(5) (relating to Recordkeeping Requirements)
 - M. Title 40 CFR § 61.356(c) (relating to Recordkeeping Requirements)
 - N. Title 40 CFR § 61.357(a), (d)(1), (d)(2) (d)(6) and (d)(8) (relating to Reporting Requirements)
 - O. Title 40 CFR § 61.357(d)(5) (relating to Reporting Requirements)
 - P. Waste generated by remediation activities at these facilities are subject to the requirements identified under 40 CFR § 61.342 for treatment and management of waste
9. For facilities with containers subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.345(a)(1) - (3), (b), and (c) (relating to Standards: Containers)
 - B. Title 40 CFR § 61.355(h) (relating to Test Methods, Procedures and Compliance Provisions)
 - C. Title 40 CFR § 61.356(g) (relating to Recordkeeping Requirements)
 - D. Title 40 CFR § 61.356(h) (relating to Recordkeeping Requirements)
10. For facilities with individual drain systems subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.346(b)(1), (2), (2)(i), (3), (4)(i) - (iv), and (5) (relating to Standards: Individual Drain Systems)
 - B. Title 40 CFR § 61.346(b)(2)(ii)(A) (relating to Standards: Individual Drain Systems), for junction boxes
 - C. Title 40 CFR § 61.346(b)(2)(ii)(B) (relating to Standards: Individual Drain Systems), for junction boxes
11. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.
12. For sources subject to emission standards in 40 CFR Part 63, Subpart CC, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.340 incorporated by reference):
- A. Title 40 CFR § 63.640(l)(3) - (4) (relating to Applicability and Designation of Affected Source), for units and equipment added to an existing source
 - B. Title 40 CFR § 63.640(m)(1) - (2) (relating to Applicability and Designation of Affected Source), for units and emission points changing from Group 2 to Group 1 status

- C. Title 40 CFR § 63.642(c) (relating to General Standards), for applicability of the General Provisions of Subpart A
 - D. Title 40 CFR § 63.642(e) (relating to General Standards), for recordkeeping
 - E. Title 40 CFR § 63.642(f) (relating to General Standards), for reporting
 - F. Group 1 process wastewater streams not managed in a wastewater management unit subject to 40 CFR Part 63, Subpart G shall comply with 40 CFR Part 61, Subpart FF as specified in 40 CFR §§ 63.647(a) - (c) and 63.655(a)
13. The permit holder shall comply with the requirement to prepare and implement an Operations and Maintenance plan in accordance with 40 CFR Part 63, Subpart UUU, § 63.1574(f) (Title 30 TAC Chapter 113, Subchapter C, § 113.780 incorporated by reference).
14. For the transfer of site remediation materials subject to 40 CFR Part 63, Subpart GGGGG off-site to another facility, the permit holder shall comply with the following requirements (Title 30 TAC, Subchapter C, § 113.1160 incorporated by reference):
- A. Title 40 CFR § 63.7936(a), for the transfer of site remediation materials
 - B. Title 40 CFR § 63.7936(b)(1), for transfer to a landfill or land disposal unit
 - C. Title 40 CFR § 63.7936(b)(2), for transfer to a facility subject to 40 CFR Part 63, Subpart DD
 - D. Title 40 CFR § 63.7936(b)(3), (b)(3)(i) - (iv), for transfer to a facility managing the site remediation material according to the requirements of 40 CFR Part 63, Subpart GGGGG
15. For containers managing remediation materials subject to 40 CFR Part 63, Subpart GGGGG, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.1160 incorporated by reference):
- A. Title 40 CFR § 63.923(b)(1) - (3), (c), (d), (d)(1) - (5), (e), and (f), (f)(1) - (4) (relating to Standards - Container Level 2 Controls)
 - B. Title 40 CFR § 63.925(a)(1) - (8), and (b)(1) - (3) (relating to Test Methods and Procedures)
 - C. Title 40 CFR § 63.926(a)(1) - (3) (relating to Inspection and Monitoring Requirements)
 - D. Title 40 CFR § 63.7901(b) and (b)(1), for initial demonstration of compliance
 - E. Title 40 CFR § 63.7901(d), and (d)(1) - (4), for initial demonstration of compliance
 - F. Title 40 CFR § 63.7903(b) and (b)(1), for continuous demonstration of compliance
 - G. Title 40 CFR § 63.7903(d)(5), (d)(5)(i), and (d)(5)(ii), for continuous demonstration of compliance
 - H. Title 40 CFR § 63.7952(c), for recordkeeping
16. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records sufficient to demonstrate compliance with the established

limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

Additional Monitoring Requirements

17. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:
 - A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
 - B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
 - C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
 - D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.
 - E. Except for emission units using a CEMS, COMS or PEMS which meets the requirements of 40 CFR § 64.3(d)(2), the permit holder shall comply with either of the following requirements for any particulate matter capture system associated with the control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective action:
 - (i) Once per year the permit holder shall inspect any fan for proper operation and inspect the capture system used in compliance of CAM for cracks, holes, tears, and other defects; or
 - (ii) Once per year, the permit holder shall inspect for fugitive emissions escaping from the capture system in compliance of CAM by performing a visible emissions observation for a period of at least six minutes in accordance with 40 CFR Part 60, Appendix A, Test Method 22.
 - F. Except for emission units using a CEMS, COMS or PEMS which meets the requirements of 40 CFR § 64.3(d)(2), the permit holder shall comply with either of the following requirements for any capture system associated with the VOC control device subject to

CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective actions:

- (i) Once a year the permit holder shall inspect the capture system in compliance of CAM for leaks in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppm above background or as defined by the underlying applicable requirement; or
- (ii) Once a month, the permit holder shall conduct a visual, audible, and/or olfactory inspection of the capture system in compliance of CAM to detect leaking components.

G. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.

18. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

19. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
- A. Are incorporated by reference into this permit as applicable requirements
 - B. Shall be located with this operating permit
 - C. Are not eligible for a permit shield
20. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
21. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or

control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

22. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
- A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit
 - B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
 - C. Requirements of the non-rule Air Quality Standard Permit for Pollution Control Projects

Compliance Requirements

23. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
24. Use of Discrete Emission Credits to comply with the applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
 - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
 - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Risk Management Plan

25. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Protection of Stratospheric Ozone

26. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:
- A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.
 - B. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.

Permit Location

27. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

28. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

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Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
AIRCOMP1	SRIC ENGINES	N/A	60IIII-01	40 CFR Part 60, Subpart IIII	No changing attributes.
AIRCOMP1	SRIC ENGINES	N/A	63ZZZZ-01	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
AIRCOMP2	SRIC ENGINES	N/A	60IIII-01	40 CFR Part 60, Subpart IIII	No changing attributes.
AIRCOMP2	SRIC ENGINES	N/A	63ZZZZ-01	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
AIRCOMP3	SRIC ENGINES	N/A	63ZZZZ-01	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
B-12	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
B-12	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
B-22A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Dc	40 CFR Part 60, Subpart Dc	No changing attributes.
B-22A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
B-22B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db-2	40 CFR Part 60, Subpart Db	No changing attributes.
B-22B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
E-7	SRIC ENGINES	N/A	63ZZZZ-01	40 CFR Part 63, Subpart ZZZZ	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
ENGEMERG-1	SRIC ENGINES	N/A	60III-02	40 CFR Part 60, Subpart III	No changing attributes.
ENGEMERG-1	SRIC ENGINES	N/A	63ZZZZ-02	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
FL-6	FLARES	N/A	R111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FL-6	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja-1	40 CFR Part 60, Subpart Ja	No changing attributes.
FL-6	CLOSED VENT SYSTEM AND CONTROL DEVICE	N/A	61FF-1	40 CFR Part 61, Subpart FF	No changing attributes.
FL-6	CLOSED VENT SYSTEM AND CONTROL DEVICE	N/A	63CC-2	40 CFR Part 63, Subpart CC	No changing attributes.
FL-7	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja-1	40 CFR Part 60, Subpart Ja	No changing attributes.
FUG-CC-VV	FUGITIVE EMISSION UNITS	N/A	63CCVV-1	40 CFR Part 63, Subpart CC	No changing attributes.
FUG-GGGA	FUGITIVE EMISSION UNITS	N/A	60GGGA-01	40 CFR Part 60, Subpart GGGa	No changing attributes.
FUG-LPG	FUGITIVE EMISSION UNITS	N/A	60GGG-1	40 CFR Part 60, Subpart GGG	No changing attributes.
FWPMP-3	SRIC ENGINES	N/A	63ZZZZ-02	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
FWPMP-4	SRIC ENGINES	N/A	63ZZZZ-02	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
FWPMP-5	SRIC ENGINES	N/A	60III-02	40 CFR Part 60, Subpart III	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
FWPMP-5	SRIC ENGINES	N/A	63ZZZZ-02	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
FWPMP-6	SRIC ENGINES	N/A	60IIII-02	40 CFR Part 60, Subpart IIII	No changing attributes.
FWPMP-6	SRIC ENGINES	N/A	63ZZZZ-02	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRP-BOILER1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	B-10, B-11, B-8, B-9	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
GRP-BOILER1	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	B-10, B-11, B-8, B-9	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-BOILER2	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	B-4, B-6	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
GRP-BOILER2	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	B-4, B-6	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-CAS	CLOSED VENT SYSTEM AND CONTROL DEVICE	CAS1, CAS11, CAS12, CAS13, CAS14, CAS15, CAS2, CAS4, CAS5, CAS6, CAS7, CAS8	61FF-02	40 CFR Part 61, Subpart FF	No changing attributes.
GRP-CASQQQ	CLOSED VENT SYSTEM AND CONTROL DEVICE	CAS10, CAS3	61FF-02	40 CFR Part 61, Subpart FF	No changing attributes.
GRPCCG1WW	STORAGE TANKS/VESSELS	S-227, S-228	60Kb-2	40 CFR Part 60, Subpart Kb	No changing attributes.
GRPCCG1WW	STORAGE TANKS/VESSELS	S-227, S-228	61FF-1	40 CFR Part 61, Subpart FF	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRP-FLARE	FLARES	FL-1, FL-3, FL-4, FL-8	R111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-FLARE	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	FL-1, FL-3, FL-4, FL-8	60Ja-1	40 CFR Part 60, Subpart Ja	No changing attributes.
GRP-FLARE	CLOSED VENT SYSTEM AND CONTROL DEVICE	FL-1, FL-3, FL-4, FL-8	61FF-01	40 CFR Part 61, Subpart FF	No changing attributes.
GRP-FLARE	CLOSED VENT SYSTEM AND CONTROL DEVICE	FL-1, FL-3, FL-4, FL-8	63CC-1	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-HTR-FG	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	H-13, H-14, H-15, H-18, H-26, H-28, H-34, H-36, H-37, H-38, H-39, H-40, H-41, H-42, H-43, H-45, H-46, H-48, H-6, H-8, H-80	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
GRP-HTR-FG	PROCESS HEATERS/FURNACES	H-13, H-14, H-15, H-18, H-26, H-28, H-34, H-36, H-37, H-38, H-39, H-40, H-41, H-42, H-43, H-45, H-46, H-48, H-6, H-8, H-80	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-HTR-FG2	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	H-1, H-11, H-9	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
GRP-HTR-FG2	PROCESS HEATERS/FURNACES	H-1, H-11, H-9	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRPREMFUG	FUGITIVE EMISSION UNITS	2021FUG, 2022FUG, OWFUG, WTFFUG	63GGGGG-1	40 CFR Part 63, Subpart GGGGG	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRPREMTK	STORAGE TANKS/VESSELS	OW3TK, TK-2021, TK-2022	63GGGGG-1	40 CFR Part 63, Subpart GGGGG	No changing attributes.
GRPREMVAC	TRANSFER SYSTEM	2021VAC, 2022VAC, OW3VAC	63GGGGG-1	40 CFR Part 63, Subpart GGGGG	No changing attributes.
GRPTSWKBE	STORAGE TANKS/VESSELS	S-195, S-196	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
GRPTSWKBE	STORAGE TANKS/VESSELS	S-195, S-196	61FF-01	40 CFR Part 61, Subpart FF	No changing attributes.
GRPTSWKBI	STORAGE TANKS/VESSELS	S-197, S-199	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
GRPTSWKBI	STORAGE TANKS/VESSELS	S-197, S-199	61FF-01	40 CFR Part 61, Subpart FF	No changing attributes.
GRP-VT-1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	VT-1, VT-13, VT-22	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-VT-2	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	VT-2, VT-8	63CC-02	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-VT-20	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	AIRCOMP1, AIRCOMP2, AIRCOMP3, B-12, E-7, ENGEMERG-1, FL-7, FWPMP-3, FWPMP-4, FWPMP-5, FWPMP-6, H-15, H-26, H-27, H-28, H-34, H-36, H-37, H-39, H-40, H-41, H-42, H-43, H-45, H-46, H-48, H-64, H-80, H-88, OLYMP- BLRHS, OLYMP- MNOFC, SUBSTN 32,	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		V-13, V-14, V-16, V-17, V-18, V-21, V-29, V-30, V-5			
GRP-VT2-20	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	H-18, H-38	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-VT-3	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	VT-30, VT-41	63CC-05	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-VT-30	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	B-10, B-11, B-4, B-6, B-8, B-9, H-1, H-11, H-13, H-14, H-2, H-6, H-8, H-9	R1111-02	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-VT-4	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	VT-34, VT-35, VT-36, VT-38, VT-9	63CC-04	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-VT-5	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	VT-24, VT-25, VT-26, VT-27, VT-28, VT-29, VT-31, VT-32, VT-33, VT-37, VT-39, VT-40, VT-5	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-WW	STORAGE TANKS/VESSELS	WW1, WW10, WW14, WW2, WW3, WW5, WW7, WW8, WW9	61FF-01	40 CFR Part 61, Subpart FF	No changing attributes.
H-2	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja-1	40 CFR Part 60, Subpart Ja	No changing attributes.
H-2	PROCESS HEATERS/FURNACES	N/A	63DDDDDD-1	40 CFR Part 63, Subpart DDDDDD	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
H-27	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
H-27	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
H-64	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja-1	40 CFR Part 60, Subpart Ja	No changing attributes.
H-64	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
H-88	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
H-88	PROCESS HEATERS/FURNACES	N/A	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
L-11	LOADING/UNLOADING OPERATIONS	N/A	63CC- GASLDG	40 CFR Part 63, Subpart CC	No changing attributes.
L-15	LOADING/UNLOADING OPERATIONS	N/A	61BB	40 CFR Part 61, Subpart BB	No changing attributes.
L-15	LOADING/UNLOADING OPERATIONS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
OLYMP-BLRHS	SRIC ENGINES	N/A	63ZZZZ-03	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
OLYMP-MNOFC	SRIC ENGINES	N/A	60IIII-01	40 CFR Part 60, Subpart IIII	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
OLYMP-MNOFC	SRIC ENGINES	N/A	63ZZZZ-04	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
OX-001	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1121-2	30 TAC Chapter 111, Visible Emissions	No changing attributes.
PROACID1	SULFURIC ACID PRODUCTION	N/A	R112-01	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
PROACID1	SULFURIC ACID PRODUCTION	N/A	60H-01	40 CFR Part 60, Subpart H	No changing attributes.
PROACID2	SULFURIC ACID PRODUCTION	N/A	R112-01	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
PROACID2	SULFURIC ACID PRODUCTION	N/A	60H-01	40 CFR Part 60, Subpart H	No changing attributes.
PROFFTRMT	TREATMENT PROCESS	N/A	61FF-01	40 CFR Part 61, Subpart FF	No changing attributes.
S-184	STORAGE TANKS/VESSELS	N/A	60KB-01	40 CFR Part 60, Subpart Kb	No changing attributes.
S-233	STORAGE TANKS/VESSELS	N/A	60Kb-01	40 CFR Part 60, Subpart Kb	No changing attributes.
S-233	STORAGE TANKS/VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-234	STORAGE TANKS/VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
SUBSTN 32	SRIC ENGINES	N/A	63ZZZZ-02	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
V-16	GAS SWEETENING/SULFUR RECOVERY UNITS	N/A	R112-01	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
V-16	FCCU CAT REGEN/FUEL	N/A	60J-01	40 CFR Part 60, Subpart J	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	GAS COMBUSTION/CLAUS SRU				
V-16	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU-006	40 CFR Part 63, Subpart UUU	No changing attributes.
V-18	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU-003	40 CFR Part 63, Subpart UUU	CRU Engineering Assessment = Demonstrating compliance by performance test., CRU TOC Emission Limitation = Vent emissions of TOC to a flare (Option 1)., CRU TOC Control Device = Control device, other than a flare, thermal incinerator, process heater or boiler, approved under §63.1573(d).
V-18	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU-004	40 CFR Part 63, Subpart UUU	CRU Engineering Assessment = Choosing to perform an engineering assessment for CRUs according to the requirements of §63.1571(c)., CRU TOC Emission Limitation = Reduce uncontrolled emissions of TOC or nonmethane TOC by 98% by weight or to a concentration of 20 ppmv (Option 2)., CRU TOC Control Device = Process Heater with a design heat input capacity < 44 MW or in which all vent streams not introduced into the flame zone.
V-20	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
V-20	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-1	40 CFR Part 60, Subpart J	No changing attributes.
V-20	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU-001	40 CFR Part 63, Subpart UUU	No changing attributes.
V-21	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU-003	40 CFR Part 63, Subpart UUU	No changing attributes.
V-5	GAS SWEETENING/SULFUR RECOVERY UNITS	N/A	R112-01	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
V-5	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-01	40 CFR Part 60, Subpart J	No changing attributes.
V-5	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU-005a	40 CFR Part 63, Subpart UUU	No changing attributes.
VT-11	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63CC-02	40 CFR Part 63, Subpart CC	No changing attributes.
VT-15	DISTILLATION OPERATIONS	N/A	60NNN-01	40 CFR Part 60, Subpart NNN	No changing attributes.
VT-15	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63CC-03	40 CFR Part 63, Subpart CC	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
WW12	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	61FF-01	40 CFR Part 61, Subpart FF	No changing attributes.
WW13	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	61FF-01	40 CFR Part 61, Subpart FF	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
AIRCOMP1	EU	60III-01	CO	40 CFR Part 60, Subpart IIII	§ 60.4204(b) § 1039.102 § 60.4201(a) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) § 60.4218	Owners and operators of non-emergency stationary CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr as stated in 40 CFR 60.4201(a) and 40 CFR 89.112(a) and 40 CFR 1039.102 and 40 CFR 1039.101.	None	None	None
AIRCOMP1	EU	60III-01	NMHC and NO _x	40 CFR Part 60, Subpart IIII	§ 60.4204(b) § 1039.102 § 60.4201(a) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) § 60.4218	Owners and operators of non-emergency stationary CI ICE with a maximum engine power greater than or equal to 75 KW but less than 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 - 2013 model year must comply with an NMHC+NO _x emission limit of 4.0 g/KW-hr as stated in 40 CFR 60.4201(a) and 40 CFR 89.112(a) and 40 CFR 1039.102.	None	None	None
AIRCOMP1	EU	60III-01	PM	40 CFR Part 60, Subpart IIII	§ 60.4204(b) § 1039.102 § 60.4201(a) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c)	Owners and operators of non-emergency stationary CI ICE with a maximum engine power greater than or equal to 130 KW and less than 560 KW and a displacement of less than	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.4218	10 liters per cylinder and is a 2011 model year and later must comply with a PM emission limit of 0.02 g/KW-hr as stated in 40 CFR 60.4201(a) and 40 CFR 1039.102 and 40 CFR 1039.101.			
AIRCOMP1	EU	63ZZZZ-01	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.	None	None	None
AIRCOMP2	EU	60IIII-01	CO	40 CFR Part 60, Subpart IIII	§ 60.4204(b) § 60.4201(a) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) § 60.4218 § 89.112(a)	Owners and operators of non-emergency stationary CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr as stated in 40 CFR 60.4201(a) and 40	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						CFR 89.112(a) and 40 CFR 1039.102 and 40 CFR 1039.101.			
AIRCOMP2	EU	60IIII-01	NMHC and NO _x	40 CFR Part 60, Subpart IIII	§ 60.4204(b) § 60.4201(a) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) § 60.4218 § 89.112(a)	Owners and operators of non-emergency stationary CI ICE with a maximum engine power greater than or equal to 75 KW but less than 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 - 2013 model year must comply with an NMHC+NO _x emission limit of 4.0 g/KW-hr as stated in 40 CFR 60.4201(a) and 40 CFR 89.112(a) and 40 CFR 1039.102.	None	None	None
AIRCOMP2	EU	60IIII-01	PM	40 CFR Part 60, Subpart IIII	§ 60.4204(b) § 60.4201(a) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) § 60.4218 § 89.112(a)	Owners and operators of non-emergency stationary CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 - 2010 model year must comply with a PM emission limit of 0.20 g/KW-hr as stated in 40 CFR 60.4201(a) and 40 CFR 89.112(a).	None	None	None
AIRCOMP2	EU	63ZZZZ-01	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.			
AIRCOMP3	EU	63ZZZZ-01	CO	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.4.b § 63.6595(a)(1) § 63.6595(c) § 63.6604(a) § 63.6605(a) § 63.6605(b) § 63.6620(f) § 63.6625(h) § 63.6630(a) § 63.6640(b)	For each existing non-emergency, non-black start CI stationary RICE with a site rating greater than 300 HP and less than or equal to 500 HP, located at a major source, you must reduce CO emissions by 70% or more.	§ 63.6612(a) § 63.6620(a) § 63.6620(a)-Table4.1.a.i § 63.6620(a)-Table4.1.a.ii § 63.6620(a)-Table4.1.a.iii § 63.6620(b) § 63.6620(d) § 63.6620(e)(1) [G]§ 63.6620(e)(2) § 63.6620(f) § 63.6630(a)-Table5.11.a.i § 63.6635(a) § 63.6635(b) § 63.6640(b)	§ 63.6620(i) § 63.6635(a) § 63.6635(c) § 63.6655(a) § 63.6655(a)(1) § 63.6655(a)(2) § 63.6655(a)(3) § 63.6655(a)(4) § 63.6655(a)(5) § 63.6660(a) § 63.6660(b) § 63.6660(c)	[G]§ 63.6620(h) § 63.6620(i) § 63.6630(c) § 63.6640(b) § 63.6640(e) § 63.6645(a) § 63.6645(g) § 63.6645(h) § 63.6650(a) § 63.6650(a)-Table7.1.a.i § 63.6650(a)-Table7.1.b § 63.6650(a)-Table7.1.c § 63.6650(b) § 63.6650(b)(1) § 63.6650(b)(2) § 63.6650(b)(3) § 63.6650(b)(4) [G]§ 63.6650(c) [G]§ 63.6650(d) § 63.6650(f)
B-12	EU	60J-01	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(f) § 60.107(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						mg/dscm (0.10 gr/dscf).			
B-12	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
B-22A	EU	60Dc	SO ₂	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
B-22A	EU	60Dc	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
B-22A	EU	60Dc	PM (Opacity)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
B-22A	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
B-22B	EU	60Db-2	SO ₂	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO ₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO ₂ emissions limit in	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) [G]§ 60.49b(r)(2)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) [G]§ 60.49b(r)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						§60.42b(k)(1).			
B-22B	EU	60Db-2	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
B-22B	EU	60Db-2	PM (Opacity)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
B-22B	EU	60Db-2	NO _x	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
B-22B	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.7510(f) § 63.7510(g)				[G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
E-7	EU	63ZZZZ-01	CO	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.9 § 63.6595(a)(1) § 63.6595(c) § 63.6605(a) § 63.6605(b) § 63.6625(h) § 63.6630(a) § 63.6640(b)	For each existing non-emergency, non-black start 2SLB stationary RICE with a site rating greater than or equal to 100 HP and less than or equal to 500 HP, located at a major source, you must limit the concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15% O ₂ .	§ 63.6612(a) [G]§ 63.6612(b) § 63.6620(a) § 63.6620(a)-Table4.3.a.i § 63.6620(a)-Table4.3.a.ii § 63.6620(a)-Table4.3.a.iii § 63.6620(a)-Table4.3.a.v § 63.6620(b) § 63.6620(d) [G]§ 63.6620(e)(2) § 63.6630(a)-Table5.12.a.i § 63.6635(a) § 63.6635(b) § 63.6640(b)	§ 63.6620(i) § 63.6635(a) § 63.6635(c) § 63.6655(a) § 63.6655(a)(1) § 63.6655(a)(2) § 63.6655(a)(3) § 63.6655(a)(4) § 63.6655(a)(5) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6620(i) § 63.6630(c) § 63.6640(b) § 63.6640(e) § 63.6645(a) § 63.6645(g) § 63.6645(h) § 63.6650(a) § 63.6650(a)-Table7.1.a.i § 63.6650(a)-Table7.1.b § 63.6650(a)-Table7.1.c § 63.6650(b) § 63.6650(b)(1) § 63.6650(b)(2) § 63.6650(b)(3) § 63.6650(b)(4) [G]§ 63.6650(c) [G]§ 63.6650(d) § 63.6650(f)
ENGEMERG-1	EU	60IIII-02	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 89.112(a)	than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).			
ENGEMERG-1	EU	60IIII-02	NMHC and NO _x	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than 560 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NO _x emission limit of 6.4 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
ENGEMERG-1	EU	60IIII-02	PM (Opacity)	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.113(a)(1) § 89.113(a)(2) § 89.113(a)(3)	Emergency stationary CI ICE, that are not fire pump engines, with displacement < 10 lpc and not constant-speed engines, with max engine power < 2237 KW and a 2007 model year and later or max engine power > 2237 KW and a 2011 model year and later, must comply with following opacity emission limits: 20% during acceleration, 15% during lugging, 50% during peaks in either acceleration or lugging modes as stated in	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						§60.4202(a)(1)-(2), (b)(2) and §89.113(a)(1)-(3) and §1039.105(b)(1)-(3).			
ENGEMERG-1	EU	60III-02	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
ENGEMERG-1	EU	63ZZZ-02	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(b)(1) § 63.6595(c) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	An affected source which meets either of the criteria in paragraphs §63.6590(b)(1)(i)-(ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).	None	None	§ 63.6645(c) § 63.6645(f)
FL-6	EU	R111-01	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
FL-6	EU	60Ja-1	Hydrogen	40 CFR Part 60,	§ 60.103a(h)	Each owner or operator	[G]§ 60.103a(a)	§ 60.103a(e)(3)	[G]§ 60.103a(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
			Sulfide	Subpart Ja	§ 60.103a(a) § 60.103a(a)(1) [G]§ 60.103a(a)(2) [G]§ 60.103a(a)(3) [G]§ 60.103a(a)(4) § 60.103a(a)(5) § 60.103a(a)(6) § 60.103a(a)(7) [G]§ 60.103a(b) § 60.103a(c) § 60.103a(c)(1) § 60.103a(c)(1)(iii) § 60.103a(c)(1)(iii) [G]§ 60.103a(d) [G]§ 60.103a(e) § 60.107a(a)(3) § 60.107a(a)(3)(i) § 60.107a(a)(3)(ii)	shall not burn in any affected flare any fuel gas that contains H ₂ S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis.	§ 60.104a(a) § 60.104a(c) § 60.104a(j) [G]§ 60.104a(j)(4) § 60.107a(a) [G]§ 60.107a(a)(2) § 60.107a(a)(4) [G]§ 60.107a(b) § 60.107a(e) [G]§ 60.107a(e)(1)-(2) § 60.107a(f) [G]§ 60.107a(f)(1)	§ 60.107a(e) [G]§ 60.107a(e)(1)-(2) § 60.108a(a) § 60.108a(c) § 60.108a(c)(1) [G]§ 60.108a(c)(6) § 60.108a(c)(7) [G]§ 60.108a(d)	§ 60.107a(i) [G]§ 60.107a(i)(2) § 60.108a(a) [G]§ 60.108a(d)
FL-6	CD	61FF-1	Benzene	40 CFR Part 61, Subpart FF	§ 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g) § 61.354(c) § 63.670	For each closed-vent system and control device used to comply with §§61.343-61.348, properly design, install, operate, and maintain the closed-vent system and control device.	§ 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(c) § 61.354(c)(3) [G]§ 61.355(h) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 61.354(c) § 61.354(c)(3) § 61.356(f) § 61.356(f)(1) § 61.356(f)(2)(i)(D) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(2) § 61.356(j)(3) § 61.356(j)(7)	§ 61.357(d)(7) § 61.357(d)(7)(iv) § 61.357(d)(7)(iv)(F)
FL-6	EU	63CC-2	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.670 § 63.670(b) § 63.670(c) § 63.670(d) § 63.670(d)(2) § 63.670(e) § 63.671(a) § 63.671(a)(1)- Table 13	On or before January 30, 2019, the owner or operator of a flare used as a control device for an emission point subject to this subpart shall meet the applicable requirements for flares as specified in paragraphs (a) through (q) of this section	§ 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1) § 63.671(b)	§ 63.670(p)	§ 63.670(q)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.671(a)(2) § 63.671(a)(3) § 63.671(a)(4) § 63.671(a)(5) § 63.671(a)(6) § 63.671(a)(7) § 63.671(a)(8) § 63.671(c) § 63.671(d) § 63.671(e)	and the applicable requirements in 63.671.			
FL-7	EU	60Ja-1	Hydrogen Sulfide	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(1)(ii) § 60.102a(a) § 60.102a(g) § 60.102a(g)(1) § 60.103a(b)	For each fuel gas combustion device the owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains H ₂ S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H ₂ S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.	§ 60.104a(a) § 60.104a(c) § 60.104a(i) § 60.104a(i)(1) § 60.104a(i)(2) § 60.104a(i)(3) [G]§ 60.104a(i)(4) [G]§ 60.104a(j) § 60.107a(a) [G]§ 60.107a(a)(2) § 60.107a(f) § 60.107a(f)(2)	§ 60.108a(a) § 60.108a(c) [G]§ 60.108a(c)(6) [G]§ 60.108a(d)	§ 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(d)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for equipment in vacuum service.	None	§ 60.486(e) § 60.486(e)(1) § 60.486(e)(5)	None
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) § 60.482-10(m) § 63.648(a)(2) § 63.648(a)(3) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for flares complying with §60.482-10.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(5)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 63.655(f)(1)(i)(D)
FUG-CC-VV	EU	63CCVV-1	112(B)	40 CFR Part 63,	§ 63.648(a)	Comply with the specified	[G]§ 60.482-1(c)	[G]§ 60.486(a)	§ 60.487(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
			HAPS	Subpart CC	[G]§ 60.482-1(c) [G]§ 60.484 § 63.648(a)(2) § 63.655(d)(2)	40 CFR Part 60, Subpart VV requirements for components complying with an equivalent emission limitation in §60.482-1.	§ 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i)(6)	[G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m) § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for closed vent (or vapor collection) systems complying with §60.482-10.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 63.648(h) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) [G]§ 63.655(f)(1)(i)(C) [G]§ 63.655(f)(1)(i)(D)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	[G]§ 63.648(g)	Compressors in hydrogen service are exempt from the requirements of §63.648(a) and (c), if an owner or operator demonstrates that a compressor is in hydrogen service. §63.648(g)(1)-(2).	[G]§ 63.648(g)	§ 63.648(h) § 63.655(d)(3) § 63.655(i)(5)	None
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-4(a) § 60.482-4(b)(1) [G]§ 60.482-9 § 63.648(a)(2) [G]§ 63.648(j) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pressure relief devices in gas/vapor service.	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 63.648(j)(1) [G]§ 63.648(j)(2)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j) § 63.648(h) [G]§ 63.648(j) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9 § 63.648(a)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pumps in light liquid service complying with §60.482-2.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.648(f) § 63.655(d)(2)		§ 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(d)(6)	
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9 § 63.648(a)(2) § 63.648(i) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for compressors complying with §60.482-3.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(d)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for sampling connection systems complying with §60.482-5.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for open-ended valves or lines complying with §60.482-6.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9	Comply with the specified 40 CFR Part 60, Subpart VV requirements for valves in gas/vapor service or in light liquid service	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 60.483-1 [G]§ 60.483-2 § 63.648(a)(2) § 63.655(d)(2)	complying with §60.482-7.	[G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i)	
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for valves in heavy liquid service complying with §60.482-8.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pumps in heavy liquid service complying with §60.482-8.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-CC-VV	EU	63CCVV-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 63.648(a)(2) § 63.655(d)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for flanges or other connectors complying with §60.482-8.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
FUG-GGGA	EU	60GGGA-01	VOC	40 CFR Part 60, Subpart GGGA	[G]§ 60.590a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart GGGA	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart GGGA

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					specification requirements of 40 CFR Part 60, Subpart GGGa		GGGa	GGGa	
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(d)	Comply with the requirements as stated in §60.482-1(d) for equipment in vacuum service.	None	§ 60.486(e) § 60.486(e)(1) § 60.486(e)(5)	None
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d) § 60.593(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-4 for pressure relief devices in gas/vapor service.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60,	§ 60.592(a)	Comply with the	§ 60.485(a)	[G]§ 60.486(a)	§ 60.487(a)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Subpart GGG	§ 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9	requirements in as stated in §60.482-5 for sampling connection systems.	[G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	§ 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	[G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 60.592(b)	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d) § 60.593(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m) § 63.670	Comply with the requirements in as stated in §60.482-10 for flares.	§ 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-8 for flanges or other connectors.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-LPG	EU	60GGG-1	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a)	Comply with the requirements in as stated in	[G]§ 60.482-8 § 60.485(a)	[G]§ 60.486(a) [G]§ 60.486(b)	§ 60.487(a) [G]§ 60.487(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9	§60.482-8 for pressure relief devices in light-liquid service.	[G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d)	[G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	[G]§ 60.487(c) § 60.487(e) § 60.592(e)
FWPMP-3	EU	63ZZZZ-02	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(i) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
FWPMP-4	EU	63ZZZZ-02	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(i) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
FWPMP-5	EU	60IIII-02	NMHC and NO _x	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than 560 KW and a displacement of less than 30 liters per cylinder and is a 2008 model year and later must comply with an NMHC+NO _x emission limit of 6.4 g/KW-hr, as listed in	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						Table 4 to this subpart.			
FWPMP-5	EU	60IIII-02	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than 560 KW and a displacement of less than 30 liters per cylinder and is a 2008 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as listed in Table 4 to this subpart.	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
FWPMP-5	EU	63ZZZZ-02	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(b)(1) § 63.6595(c) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	An affected source which meets either of the criteria in paragraphs §63.6590(b)(1)(i)-(ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).	None	None	§ 63.6645(c) § 63.6645(f)
FWPMP-6	EU	60IIII-02	NMHC and NO _x	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than 560 KW and a displacement of less than 30 liters per cylinder and is a 2008 model year and later must comply with an NMHC+NO _x emission limit of 6.4 g/KW-hr, as listed in Table 4 to this subpart.	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
FWPMP-6	EU	60IIII-02	PM	40 CFR Part 60,	§ 60.4205(c)-Table 4	Owners and operators of	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Subpart IIII	§ 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	emergency stationary fire pump CI ICE with a maximum engine power greater than 560 KW and a displacement of less than 30 liters per cylinder and is a 2008 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as listed in Table 4 to this subpart.			
FWPMP-6	EU	63ZZZZ-02	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(b)(1) § 63.6595(c) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	An affected source which meets either of the criteria in paragraphs §63.6590(b)(1)(i)-(ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).	None	None	§ 63.6645(c) § 63.6645(f)
GRP-BOILER1	EU	60J-01	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H ₂ S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(f) § 60.107(g)
GRP-BOILER1	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	under §63.7522.		§ 63.7560(c)	§ 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
GRP-BOILER2	EU	60J-01	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H ₂ S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(f) § 60.107(g)
GRP-BOILER2	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
GRP-CAS	CD	61FF-02	Benzene	40 CFR Part 61, Subpart FF	§ 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(a)(2)(ii) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g)	For each closed-vent system and control device used to comply with §§61.343-61.348, properly design, install, operate, and maintain the closed-vent system and control device.	§ 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(d) [G]§ 61.355(h)	§ 61.356(f) § 61.356(f)(1) § 61.356(f)(2) § 61.356(f)(2)(i) § 61.356(f)(2)(i)(G) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(10) § 61.356(j)(2) § 61.356(j)(3)	None
GRP-CASQQQ	CD	61FF-02	Benzene	40 CFR Part 61, Subpart FF	§ 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(a)(2)(ii) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g)	For each closed-vent system and control device used to comply with §§61.343-61.348, properly design, install, operate, and maintain the closed-vent system and control device.	§ 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(d) [G]§ 61.355(h)	§ 61.356(f) § 61.356(f)(1) § 61.356(f)(2) § 61.356(f)(2)(i) § 61.356(f)(2)(i)(G) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(10) § 61.356(j)(2) § 61.356(j)(3)	None
GRPCCG1WW	EU	60Kb-2	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) § 60.116b(f)(1)		
GRPCCG1WW	EU	61FF-1	Benzene	40 CFR Part 61, Subpart FF	§ 61.351(a) [G]§ 60.112b(a)(2) § 61.351(a)(2) § 61.351(b)	As an alternative to the standards for tanks specified in § 61.343, an owner or operator may elect to comply with one of the following §61.351(a)(1)-(3):	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6)	§ 60.115b [G]§ 60.115b(b)(3) § 61.356(k)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4) § 61.357(e) § 61.357(f)
GRP-FLARE	CD	R111-01	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
GRP-FLARE	EU	60Ja-1	Hydrogen Sulfide	40 CFR Part 60, Subpart Ja	§ 60.103a(h) § 60.103a(a) § 60.103a(a)(1) [G]§ 60.103a(a)(2) [G]§ 60.103a(a)(3) [G]§ 60.103a(a)(4) § 60.103a(a)(5) § 60.103a(a)(6) § 60.103a(a)(7) [G]§ 60.103a(b) § 60.103a(c)	Each owner or operator shall not burn in any affected flare any fuel gas that contains H2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis.	[G]§ 60.103a(a) § 60.104a(a) § 60.104a(c) § 60.104a(j) [G]§ 60.104a(j)(4) § 60.107a(a) [G]§ 60.107a(a)(2) § 60.107a(a)(4) [G]§ 60.107a(b) § 60.107a(e) [G]§ 60.107a(e)(1)-(2)	§ 60.103a(e)(3) § 60.107a(e) [G]§ 60.107a(e)(1)-(2) § 60.108a(a) § 60.108a(c) § 60.108a(c)(1) [G]§ 60.108a(c)(6) § 60.108a(c)(7) [G]§ 60.108a(d)	[G]§ 60.103a(b) § 60.107a(i) [G]§ 60.107a(i)(2) § 60.108a(a) [G]§ 60.108a(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.103a(c)(1) § 60.103a(c)(1)(i) § 60.103a(c)(1)(ii) § 60.103a(c)(1)(iii) [G]§ 60.103a(d) [G]§ 60.103a(e) § 60.107a(a)(3) § 60.107a(a)(3)(i) § 60.107a(a)(3)(ii)		§ 60.107a(f) [G]§ 60.107a(f)(1)		
GRP-FLARE	CD	61FF-01	Benzene	40 CFR Part 61, Subpart FF	§ 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g) § 61.354(c) § 63.670	For each closed-vent system and control device used to comply with §§61.343-61.348, properly design, install, operate, and maintain the closed-vent system and control device.	§ 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(c) § 61.354(c)(3) [G]§ 61.355(h) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 61.354(c) § 61.354(c)(3) § 61.356(f) § 61.356(f)(1) § 61.356(f)(2)(i)(D) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(2) § 61.356(j)(3) § 61.356(j)(7)	§ 61.357(d)(7) § 61.357(d)(7)(iv) § 61.357(d)(7)(iv)(F)
GRP-FLARE	EU	63CC-1	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.670 § 63.640(h) § 63.640(s) § 63.670(b) § 63.670(c) § 63.670(d) § 63.670(d)(1) § 63.670(e) [G]§ 63.670(o) § 63.671(a) § 63.671(a)(1)-Table 13 § 63.671(a)(2) § 63.671(a)(3) § 63.671(a)(4) § 63.671(a)(5) § 63.671(a)(6) § 63.671(a)(7)	On or before January 30, 2019, the owner or operator of a flare used as a control device for an emission point subject to this subpart shall meet the applicable requirements for flares as specified in paragraphs (a) through (q) of this section and the applicable requirements in 63.671.	§ 63.670(b) § 63.670(c) § 63.670(e) § 63.670(g) [G]§ 63.670(h) [G]§ 63.670(i) § 63.670(j)(1) § 63.670(j)(3) § 63.670(j)(4) [G]§ 63.670(k) [G]§ 63.670(l) § 63.670(m) § 63.670(m)(1) § 63.671(b)	[G]§ 63.655(i)(9) § 63.670(h) § 63.670(j)(1) § 63.670(j)(3) § 63.670(j)(4) § 63.670(p)	§ 63.670(q)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.671(a)(8) § 63.671(c) § 63.671(d) § 63.671(e)				
GRP-HTR-FG	EU	60J-01	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H ₂ S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(f) § 60.107(g)
GRP-HTR-FG	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
GRP-HTR-FG2	EU	60J-01	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(f) § 60.107(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H ₂ S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)		
GRP-HTR-FG2	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
GRPREMFUG	EU	63GGGG G-1	112(B) HAPS	40 CFR Part 63, Subpart GGGGG	§ 63.7887 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart GGGGG

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPREMTK	EU	63GGGG G-1	112(B) HAPS	40 CFR Part 63, Subpart GGGGG	§ 63.7886(b)(1)(i) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart GGGGG
GRPREMVAC	EU	63GGGG G-1	112(B) HAPS	40 CFR Part 63, Subpart GGGGG	§ 63.7886(b)(1)(v) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart GGGGG	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart GGGGG
GRPTSWKBE	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) § 60.116b(f)(1)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)
GRPTSWKBE	EU	61FF-01	Benzene	40 CFR Part 61,	§ 61.351(a)	As an alternative to the	[G]§ 60.113b(b)(1)	§ 60.115b	§ 60.113b(b)(4)(iii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Subpart FF	[G]§ 60.112b(a)(2) § 61.351(a)(2) § 61.351(b)	standards for tanks specified in § 61.343, an owner or operator may elect to comply with one of the following §61.351(a)(1)-(3):	[G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6)	[G]§ 60.115b(b)(3) § 61.356(k)	§ 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4) § 61.357(e) § 61.357(f)
GRPTSWKBI	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(B) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) [G]§ 60.113b(a)(3) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) § 60.116b(f)(1)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b)	§ 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(4)
GRPTSWKBI	EU	61FF-01	Benzene	40 CFR Part 61, Subpart FF	§ 61.351(a) § 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(B) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii) § 61.351(a)(1) § 61.351(b)	As an alternative to the standards for tanks specified in § 61.343, an owner or operator may elect to comply with one of the following §61.351(a)(1)-(3):	§ 60.113b(a)(1) [G]§ 60.113b(a)(3) § 60.113b(a)(4) § 60.113b(a)(5)	§ 60.115b § 60.115b(a)(2) § 61.356(k)	§ 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(4) § 61.357(e) § 61.357(f)
GRP-VT-1	EP	63CC-01	§112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.643(a) § 63.643(a)(1) § 63.670	The owner or operator of a Group 1 miscellaneous process vent as defined in §63.641 shall comply with the requirements of either	§ 63.644(a) § 63.644(a)(2) § 63.644(e) § 63.645(a) § 63.645(i)	§ 63.642(e) § 63.655(i)(5)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(ii) [G]§ 63.655(f)(1)(iv)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						paragraphs (a)(1) or (a)(2) of this section.	§ 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)		[G]§ 63.655(f)(2) § 63.655(f)(4) § 63.655(g) § 63.655(g)(6) § 63.655(h)
GRP-VT-2	EP	63CC-02	§112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(1)	All miscellaneous process vents from petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.645(g) § 63.645(h) § 63.645(h)(1) § 63.645(h)(2)	§ 63.655(g)(7)(ii) § 63.655(i)(5)	§ 63.645(h)(2) § 63.655(f) § 63.655(f)(1)(ii) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i)
GRP-VT-20	EP	R1111-01	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRP-VT2-20	EP	R1111-01	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRP-VT-3	EP	63CC-05	§112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.643(a) § 63.643(a)(1) § 63.670	The owner or operator of a Group 1 miscellaneous process vent as defined in §63.641 shall comply with the requirements of either paragraphs (a)(1) or (a)(2) of this section.	§ 63.644(a) § 63.644(a)(2) § 63.644(e) § 63.645(a) § 63.645(i) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 63.642(e) § 63.655(i)(5)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(ii) [G]§ 63.655(f)(1)(iv) [G]§ 63.655(f)(2) § 63.655(f)(4) § 63.655(g) § 63.655(g)(6) § 63.655(h)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-VT-30	EP	R1111-02	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(A) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 30% averaged over a six minute period.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRP-VT-4	EP	63CC-04	§112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.643(a) § 63.643(a)(1) § 63.670	The owner or operator of a Group 1 miscellaneous process vent as defined in §63.641 shall comply with the requirements of either paragraphs (a)(1) or (a)(2) of this section.	§ 63.644(a) § 63.644(a)(2) § 63.644(e) § 63.645(a) § 63.645(i) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 63.642(e) § 63.655(i)(5)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(ii) [G]§ 63.655(f)(1)(iv) [G]§ 63.655(f)(2) § 63.655(f)(4) § 63.655(g) § 63.655(g)(6) § 63.655(h)
GRP-VT-5	EP	63CC-01	§112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.643(a) § 63.643(a)(1) § 63.670	The owner or operator of a Group 1 miscellaneous process vent as defined in §63.641 shall comply with the requirements of either paragraphs (a)(1) or (a)(2) of this section.	§ 63.644(a) § 63.644(a)(2) § 63.644(e) § 63.645(a) § 63.645(i) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 63.642(e) § 63.655(i)(5)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(ii) [G]§ 63.655(f)(1)(iv) [G]§ 63.655(f)(2) § 63.655(f)(4) § 63.655(g) § 63.655(g)(6) § 63.655(h)
GRP-WW	EU	61FF-01	Benzene	40 CFR Part 61, Subpart FF	§ 61.343(a)(1) § 61.343(a)(1)(i)(A) § 61.343(a)(1)(i)(B) § 61.343(c) § 61.343(d) § 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g)	The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device.	§ 61.343(a)(1)(i)(A) § 61.343(c) § 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(c) § 61.354(c)(3) [G]§ 61.355(h) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 61.354(c) § 61.354(c)(3) § 61.356(d) § 61.356(f) § 61.356(f)(1) § 61.356(g) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(2) § 61.356(j)(3) § 61.356(j)(7)	§ 61.357(d)(7) § 61.357(d)(7)(iv) § 61.357(d)(7)(iv)(F)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.670				
H-2	EU	60Ja-1	Hydrogen Sulfide	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(1)(ii) § 60.102a(a) § 60.102a(g) § 60.102a(g)(1) § 60.103a(c) § 60.103a(c)(2) § 60.103a(d) § 60.103a(d)(1) § 60.103a(d)(5) § 60.103a(e) § 60.103a(e)(1) § 60.103a(e)(2) § 60.107a(i) § 60.107a(i)(1)(ii)	For each fuel gas combustion device the owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains H ₂ S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H ₂ S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.	§ 60.104a(a) § 60.104a(c) § 60.107a(a) § 60.107a(a)(2) § 60.107a(a)(2)(i) § 60.107a(a)(2)(ii) § 60.107a(a)(2)(iii) § 60.107a(a)(2)(iv)	§ 60.103a(e)(1) § 60.103a(e)(2) § 60.103a(e)(3) § 60.108a(a) [G]§ 60.108a(d)	§ 60.104a(a) § 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
H-2	EU	60Ja-1	NO _x	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(2) § 60.102a § 60.102a(a) § 60.102a(g) § 60.102a(g)(2)(i) § 60.102a(g)(2)(i)(B) § 60.103a(c) § 60.103a(c)(2) § 60.103a(d) § 60.103a(d)(1) § 60.103a(d)(5) § 60.103a(e) § 60.103a(e)(1) § 60.103a(e)(2) § 60.107a § 60.107a(i)(3) § 60.107a(i)(3)(i) § 60.107a(i)(4)	For each process heater with a rated capacity of greater than 40 million British thermal units per hour (MMBtu/hr), the owner or operator shall not discharge to the atmosphere any emissions of NO _x in excess of 40 ppmv (dry basis, corrected to 0 percent excess air) on a 24-hour rolling average basis.	§ 60.104a(a) § 60.104a(c) § 60.104a(i)(5) § 60.104a(i)(8) § 60.107a(d) § 60.107a(d)(1) § 60.107a(d)(2) § 60.107a(d)(3) [G]§ 60.107a(d)(4) [G]§ 60.107a(d)(5) [G]§ 60.107a(d)(7)	§ 60.103a(e)(1) § 60.103a(e)(2) § 60.103a(e)(3) § 60.108a(a) [G]§ 60.108a(d)	§ 60.104a(a) § 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
H-2	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7540(a)(13)	§ 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
H-27	EU	60J-01	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H ₂ S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(f) § 60.107(g)
H-27	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.1 § 63.7490(a) § 63.7490(a)(1) § 63.7495(b) § 63.7495(h) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7500(e) § 63.7505(a)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(e) § 63.7515(d) § 63.7540(a) § 63.7540(a)(13)	§ 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(b) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i)-(ii) [G]§ 63.7545(f) [G]§ 63.7545(h)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.7510(e)				§ 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
H-64	EU	60Ja-1	Hydrogen Sulfide	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(1)(ii) § 60.102a(a) § 60.102a(g) § 60.102a(g)(1) § 60.103a(c) § 60.103a(c)(2) § 60.103a(d) § 60.103a(d)(1) § 60.103a(d)(5) § 60.103a(e) § 60.103a(e)(1) § 60.103a(e)(2) § 60.107a(i) § 60.107a(i)(1)(ii)	For each fuel gas combustion device the owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains H ₂ S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H ₂ S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.	§ 60.104a(a) § 60.104a(c) § 60.107a(a) § 60.107a(a)(2) § 60.107a(a)(2)(i) § 60.107a(a)(2)(ii) § 60.107a(a)(2)(iii) § 60.107a(a)(2)(iv)	§ 60.103a(e)(1) § 60.103a(e)(2) § 60.103a(e)(3) § 60.108a(a) § 60.108a(c)(6) § 60.108a(c)(6)(i) § 60.108a(c)(6)(ii) § 60.108a(c)(6)(iii) § 60.108a(c)(6)(ix) § 60.108a(c)(6)(v) § 60.108a(c)(6)(vii) § 60.108a(c)(6)(viii) § 60.108a(c)(6)(x) [G]§ 60.108a(d)	§ 60.104a(a) § 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
H-64	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv) § 63.7550(c)(5)(xvii) § 63.7550(h)(3)
H-88	EU	60J-01	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H ₂ S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(f) § 60.107(g)
H-88	EU	63DDDDD-1	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7490(a) § 63.7490(a)(1) § 63.7495(a) § 63.7495(h) § 63.7495(i) § 63.7500(a) § 63.7500(a)(1) § 63.7500(a)(2) § 63.7500(a)(3) § 63.7505(a) § 63.7510(f) § 63.7510(g)	You must meet each emission limit and work practice standard in Table 3 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522.	§ 63.7510(f) § 63.7510(g) § 63.7515(d) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	[G]§ 63.7540(a)(10)(vi) § 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	§ 63.7495(d) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(c) § 63.7545(e) § 63.7545(e)(1) § 63.7545(e)(6) § 63.7545(e)(7) § 63.7545(e)(8)(i) § 63.7545(e)(8)(ii) [G]§ 63.7545(f) [G]§ 63.7545(h) § 63.7550(a)-Table 9 § 63.7550(b)-Table 9 § 63.7550(c) § 63.7550(c)(1) § 63.7550(c)(5)(i) § 63.7550(c)(5)(ii) § 63.7550(c)(5)(iii) § 63.7550(c)(5)(xiv)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.7550(c)(5)(xvii) § 63.7550(h)(3)
L-11	EU	63CC-GASLDG	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.650(a) § 60.502(a) § 60.502(d) § 60.502(g) § 60.502(h) § 60.502(i) § 63.422(a) § 63.422(b) § 63.427(b)	A gasoline loading rack classified under SIC 2911 located within a contiguous area and under common control with a petroleum refinery shall comply with specified sections.	§ 60.503(a) § 60.503(b) § 60.503(d) § 60.503(d)(1) § 60.503(d)(2) § 63.425(a) § 63.425(b) § 63.425(b)(1) § 63.425(b)(2) § 63.425(b)(3) § 63.427(a) § 63.427(a)(3) § 63.427(b) § 63.642(d)(1) § 63.642(d)(3) § 63.642(d)(4)	§ 60.503(d)(2) § 63.425(b)(1) § 63.425(c) § 63.428(c)(1) § 63.428(c)(2) § 63.428(c)(2)(i) § 63.642(e) § 63.655(b) § 63.655(i)(5)	§ 63.428(c)(2) § 63.428(c)(2)(i) § 63.428(h)(1) § 63.642(d)(2) § 63.642(f) § 63.655(b)
L-15	EU	61BB	Benzene	40 CFR Part 61, Subpart BB	§ 61.300(b)	Any affected facility as per § 61.300(a), loading only liquid containing < 70 weight-percent benzene is exempt from this subpart, except for the recordkeeping and reporting in § 61.305(i).	None	[G]§ 61.305(i)	[G]§ 61.305(i)
L-15	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2346(b)(1)-Table 2 § 63.2342(a) § 63.2342(a)(2) § 63.2342(d) § 63.2346(b) § 63.2346(b)(1)-Table 2.10(a)(i) § 63.2346(b)(1)-Table 2.10(b)(i) § 63.2346(b)(1)-Table 2.10(b)(ii)	A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks is equal to or greater than 800,000 gallons.	§ 63.2354(a)(1) § 63.2354(a)(2) [G]§ 63.2354(b) § 63.2354(c) § 63.2358(a) § 63.2358(d) § 63.2362(a)-Table 5 § 63.2366(a) § 63.2366(b) § 63.2374(a) § 63.2374(b) § 63.2374(c)	§ 63.2362(b)(2) [G]§ 63.2390(b) [G]§ 63.2390(c) § 63.2390(d) § 63.2394(a) § 63.2394(b) § 63.2394(c)	[G]§ 63.2343(d) § 63.2370(c) § 63.2382(a) § 63.2382(b)(2) § 63.2382(c) [G]§ 63.2382(d) [G]§ 63.2386 § 63.2386-Table 11.1(a) § 63.2386-Table 11.1(c) § 63.2386-Table 11.1(d) § 63.2386-Table 11.2(a)(i)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.2346(e)-Table 3.1 § 63.2346(g) § 63.2346(i) § 63.2346-Table 7.3(a)(i) § 63.2350(a) § 63.2350(b) § 63.2350(c) § 63.2362(b)(2) § 63.2370(a)-Table 6.2 § 63.2370(b) § 63.2378(a)-Table 10.4(a)(i) § 63.2378(a)-Table 8.2(a)(i) § 63.2378(a)-Table 9.1(a)(i) § 63.2378(a)-Table 9.1(a)(ii) [G]§ 63.2378(b) § 63.2378(c)				
OLYMP-BLRHS	EU	63ZZZZ-03	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.6 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(j) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary SI RICE and black start stationary SI RICE with a site rating less than or equal to 500 HP, located at a major source, you must comply with the requirements as specified in Table 2c.6.a-c.	§ 63.6625(f) § 63.6625(j) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(j) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
OLYMP-MNOFC	EU	60IIII-01	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).			
OLYMP-MNOFC	EU	60III-01	NMHC and NO _x	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than or equal to 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NO _x emission limit of 4.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	None	None	None
OLYMP-MNOFC	EU	60III-01	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						a PM emission limit of 0.20 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).			
OLYMP-MNOFC	EU	63ZZZZ-04	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.	None	None	None
OX-001	EP	R1121-2	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
PROACID1	EU	R112-01	SO ₂	30 TAC Chapter 112, Sulfur Compounds	§ 112.6(a) § 112.6(b)	Except as provided in §112.5 and in §112.14 no person may cause, suffer, allow, or permit emissions of SO ₂ from any sulfuric acid plant to exceed the emission limits set by the specified equation.	§ 112.2(a)	§ 112.2(c)	§ 112.2(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PROACID1	PRO	60H-01	SO ₂	40 CFR Part 60, Subpart H	§ 60.82(a)	On and after the §60.8 performance test, no owner or operator shall discharge gases containing SO ₂ in excess of 2 kg per metric ton (4.0 lb per ton) of acid produced into the atmosphere.	§ 60.84(a) § 60.84(b) § 60.84(c) § 60.84(e) § 60.85(a) § 60.85(b)(1) § 60.85(b)(2) § 60.85(b)(3)	None	§ 60.84(e)
PROACID1	PRO	60H-01	PM (Opacity)	40 CFR Part 60, Subpart H	§ 60.83(a)(2)	No owner or operator shall discharge any gases exhibiting 10% opacity, or greater.	§ 60.85(a) § 60.85(b)(4)	None	None
PROACID1	PRO	60H-01	H ₂ SO ₄	40 CFR Part 60, Subpart H	§ 60.83(a)(1)	No owner or operator shall discharge any gases containing acid mist, expressed as H ₂ SO ₄ , in excess of 0.075 kg per metric ton (0.15 lb per ton) of acid produced, the production being expressed as 100% H ₂ SO ₄ .	§ 60.85(a) § 60.85(b)(1) § 60.85(b)(2) § 60.85(b)(3)	None	None
PROACID2	EU	R112-01	SO ₂	30 TAC Chapter 112, Sulfur Compounds	§ 112.6(a) § 112.6(b)	Except as provided in §112.5 and in §112.14 no person may cause, suffer, allow, or permit emissions of SO ₂ from any sulfuric acid plant to exceed the emission limits set by the specified equation.	§ 112.2(a) ** See CAM Summary	§ 112.2(c)	§ 112.2(b)
PROACID2	PRO	60H-01	SO ₂	40 CFR Part 60, Subpart H	§ 60.82(a)	On and after the §60.8 performance test, no owner or operator shall discharge gases containing SO ₂ in excess of 2 kg per metric ton (4.0 lb per ton) of acid produced into the atmosphere.	§ 60.84(a) § 60.84(b) § 60.84(c) § 60.84(e) § 60.85(a) § 60.85(b)(1) § 60.85(b)(2) § 60.85(b)(3)	None	§ 60.84(e)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							** See CAM Summary		
PROACID2	PRO	60H-01	PM (Opacity)	40 CFR Part 60, Subpart H	§ 60.83(a)(2)	No owner or operator shall discharge any gases exhibiting 10% opacity, or greater.	§ 60.85(a) § 60.85(b)(4)	None	None
PROACID2	PRO	60H-01	H ₂ SO ₄	40 CFR Part 60, Subpart H	§ 60.83(a)(1)	No owner or operator shall discharge any gases containing acid mist, expressed as H ₂ SO ₄ , in excess of 0.075 kg per metric ton (0.15 lb per ton) of acid produced, the production being expressed as 100% H ₂ SO ₄ .	§ 60.85(a) § 60.85(b)(1) § 60.85(b)(2) § 60.85(b)(3)	None	None
PROFFTRMT	PRO	61FF-01	Benzene	40 CFR Part 61, Subpart FF	§ 61.348(a)(1) § 61.348(a)(1)(i) § 61.348(a)(2) § 61.348(a)(3) § 61.348(a)(4) [G]§ 61.348(d) § 61.348(e) § 61.348(e)(1) § 61.348(e)(2)	The owner or operator shall design, install, operate and maintain a treatment process that removes or destroys benzene as specified.	§ 61.348(e)(1)	§ 61.356(e) § 61.356(e)(1) [G]§ 61.356(i)	§ 61.357(d) § 61.357(d)(7) § 61.357(d)(7)(i) § 61.357(d)(7)(ii) § 61.357(d)(7)(iii)
S-184	EU	60KB-01	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3)
S-233	EU	60Kb-01	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2)	§ 60.115b [G]§ 60.115b(b)(3)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	§ 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)
S-233	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(n)(8) § 63.640(n)(8)(i) § 63.640(n)(8)(ii) § 63.640(n)(8)(iii) § 63.640(n)(8)(vii) § 63.640(n)(8)(viii)	Storage vessels described by paragraphs (n)(1) and (n)(3) of this section are to comply with 40 CFR part 60, subpart Kb except as provided for in paragraphs (n)(8)(i) through (n)(8)(vi) of this section.	§ 63.640(n)(8)(ii)	§ 63.640(n)(8)(vi)	§ 63.640(n)(8)(iv) § 63.640(n)(8)(v)
S-234	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(2) § 63.640(l) § 63.640(m)	All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section.	None	§ 63.1065(a) § 63.642(e) [G]§ 63.655(g)(7) § 63.655(i)(1)(iv) § 63.655(i)(6) § 63.665(i)(1)(vi)	[G]§ 63.640(k)(2) § 63.640(l)(3) § 63.640(m)(1) § 63.640(m)(2) § 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(i)(A) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i) § 63.655(h) § 63.655(h)(6) § 63.655(h)(6)(ii)
SUBSTN 32	EU	63ZZZZ-	112(B)	40 CFR Part 63,	§ 63.6602-Table2c.1	For each existing	§ 63.6625(f)	§ 63.6625(i)	§ 63.6640(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		02	HAPS	Subpart ZZZZ	§ 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6650(f)
V-16	EU	R112-01	SO ₂	30 TAC Chapter 112, Sulfur Compounds	§ 112.7(a) § 112.7(b)	No person may cause, suffer, allow, or permit emissions of SO ₂ to exceed the emission limits specified for stack effluent flow rates < 4,000 scfm as determined by the specified equation.	§ 112.2(a) ** See CAM Summary	§ 112.2(c)	§ 112.2(b)
V-16	PRO	60J-01	SO ₂	40 CFR Part 60, Subpart J	§ 60.104(a)(2)(i)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any Claus sulfur recovery plant with a reduction control system followed by incineration any gases containing in excess of 250 ppm by volume of SO ₂ at zero percent excess air.	[G]§ 60.105(a)(5) § 60.106(a) [G]§ 60.106(f) ** See CAM Summary	[G]§ 60.105(a)(5)	§ 60.105(e)(4)(i) § 60.107(d) § 60.107(f) § 60.107(g)
V-16	EU	63UUU-006	SO ₂	40 CFR Part 63, Subpart UUU	§ 63.1568(a)(1)-Table29.1.a § 63.1568(a)(1) § 63.1568(a)(2) § 63.1568(a)(2)-Table30.1 § 63.1568(a)(3) § 63.1568(b)(3) § 63.1568(b)(4)	For each new or existing Claus SRU part of a sulfur recovery plant of 20 long tons per day or more and subject to NSPS for sulfur oxides in 40 CFR §60.104(a)(2), you must meet the emission limit for each process vent of	§ 63.1568(b)(1) § 63.1568(b)(1)-Table31.1.a § 63.1568(c)(1)-Table34.1.a § 63.1572(a)(1)-Table40.5 § 63.1572(a)(1)-Table40.9	§ 63.1568(b)(1)-Table31.1.a § 63.1568(c)(1)-Table34.1.a § 63.1570(c) [G]§ 63.1576(a) [G]§ 63.1576(b) § 63.1576(d) § 63.1576(e)	§ 63.1568(b)(6) § 63.1568(b)(7) § 63.1570(f) § 63.1571(a) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.1568(b)(5) § 63.1568(b)(5)-Table33.1.a § 63.1568(c)(1) § 63.1568(c)(1)-Table35.1 § 63.1568(c)(2) § 63.1570(a) § 63.1570(c) § 63.1570(d)	250ppmv (dry basis) of sulfur dioxide (SO ₂) at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	§ 63.1572(a)(2) § 63.1572(a)(3) § 63.1572(a)(4) [G]§ 63.1572(d)	§ 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(e) [G]§ 63.1575(f) § 63.1575(g)
V-18	EU	63UUU-003	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1569(a)(1)(ii)-Table36.2 § 63.1569(a)(1) § 63.1569(a)(3) § 63.1569(b)(2) § 63.1569(b)(2)-Table38.1.b § 63.1569(c)(1) § 63.1570(a) § 63.1570(c) § 63.1570(d)	If you elect to use a manual lock system (Option 2), you must install a car-seal or lock-and-key device placed on the mechanism by which the bypass device flow position is controlled (e.g., valve handle, damper level) when the bypass device is in the closed position such that the bypass line valve cannot be opened without breaking the seal or removing the device.	§ 63.1569(c)(1)-Table39.2	§ 63.1569(c)(1)-Table39.2 § 63.1569(c)(1)-Table39.5 § 63.1570(c) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1569(b)(3) § 63.1569(b)(4) § 63.1569(c)(1)-Table39.5 § 63.1570(f) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g)
V-18	EU	63UUU-003	HYDROGEN CHLORIDE	40 CFR Part 63, Subpart UUU	§ 63.1567(a)(1)-Table22.2 § 63.1567(a)(1) § 63.1567(a)(1)(i) § 63.1567(a)(1)(ii) § 63.1567(a)(2) § 63.1567(a)(2)-Table23.1 § 63.1567(a)(3) § 63.1567(b)(3) § 63.1567(b)(4)	For each existing cyclic or continuous CRU, you must reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3% oxygen.	§ 63.1567(b)(1) § 63.1567(b)(1)-Table24.1 § 63.1567(b)(2) § 63.1567(b)(2)-Table25.1.a.(1) § 63.1567(b)(2)-Table25.1.a.(2) § 63.1567(b)(2)-Table25.1.b § 63.1567(b)(2)-	§ 63.1567(b)(1)-Table24.1 § 63.1567(b)(2)-Table25.2.a.i § 63.1567(b)(2)-Table25.2.b.i § 63.1567(c)(1)-Table28.1.a § 63.1567(c)(1)-Table28.1.b § 63.1567(c)(2)	§ 63.1567(b)(6) § 63.1567(b)(7) § 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.1567(b)(4)(i) § 63.1567(b)(5) § 63.1567(b)(5)-Table26.2 § 63.1567(c)(1) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d)(4) [G]§ 63.1571(e)		Table25.1.c § 63.1567(b)(2)-Table25.1.d § 63.1567(b)(2)-Table25.1.e.(1) § 63.1567(b)(2)-Table25.1.e.(2) § 63.1567(b)(2)-Table25.1.e.(3) § 63.1567(b)(2)-Table25.1.e.(4) § 63.1567(b)(2)-Table25.2.a.i § 63.1567(b)(2)-Table25.2.b.i § 63.1567(b)(2)-Table25.2.b.ii § 63.1567(c)(1)-Table27.2 § 63.1567(c)(1)-Table28.1.a § 63.1567(c)(1)-Table28.1.b § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) § 63.1572(c) § 63.1572(c)(1) § 63.1572(c)(2) § 63.1572(c)(3) § 63.1572(c)(4) [G]§ 63.1572(d) [G]§ 63.1573(a)(1)	§ 63.1570(c) § 63.1572(c)(4) § 63.1572(c)(5) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g)
V-18	EU	63UUU-003	TOC	40 CFR Part 63, Subpart UUU	§ 63.1566(a)(1)(i)-Table15.1 § 63.1566(a)(1) § 63.1566(a)(2) § 63.1566(a)(2)-Table16.1	For each applicable process vent for a new or existing catalytic reforming unit, you must vent emissions of total organic compounds (TOC) to a flare that meets the	§ 63.1566(b)(1) § 63.1566(b)(1)-Table17.1 § 63.1566(b)(2) § 63.1566(b)(2)-Table18.1.a	§ 63.1566(c)(1)-Table21.1 § 63.1570(c) [G]§ 63.1576(a) § 63.1576(c) § 63.1576(d)	§ 63.1566(b)(7) § 63.1566(b)(8) § 63.1570(f) § 63.1571(a) [G]§ 63.1574(a) § 63.1574(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.1566(a)(3) § 63.1566(a)(4) § 63.1566(a)(5) § 63.1566(b)(3) § 63.1566(b)(4) § 63.1566(b)(6) § 63.1566(b)(6)-Table19.1 § 63.1566(c)(1) § 63.1566(c)(2) § 63.1570(a) § 63.1570(b) § 63.1570(c) § 63.1570(d) [G]§ 63.1571(e)	control device requirements in §63.11(b) (Option 1). Visible emissions from a flare must not exceed a total of 5 minutes during any 2-hour operating period.	§ 63.1566(b)(2)-Table18.1.b § 63.1566(c)(1)-Table20.1 § 63.1566(c)(1)-Table21.1 § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) [G]§ 63.1572(d)	§ 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g)
V-18	EU	63UUU-004	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1569(a)(1)(ii)-Table36.2 § 63.1569(a)(1) § 63.1569(a)(3) § 63.1569(b)(2) § 63.1569(b)(2)-Table38.1.b § 63.1569(c)(1) § 63.1570(a) § 63.1570(c) § 63.1570(d)	If you elect to use a manual lock system (Option 2), you must install a car-seal or lock-and-key device placed on the mechanism by which the bypass device flow position is controlled (e.g., valve handle, damper level) when the bypass device is in the closed position such that the bypass line valve cannot be opened without breaking the seal or removing the device.	§ 63.1569(c)(1)-Table39.2	§ 63.1569(c)(1)-Table39.2 § 63.1569(c)(1)-Table39.5 § 63.1570(c) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1569(b)(3) § 63.1569(b)(4) § 63.1569(c)(1)-Table39.5 § 63.1570(f) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g)
V-18	EU	63UUU-004	HYDROGE N CHLORIDE	40 CFR Part 63, Subpart UUU	§ 63.1567(a)(1)-Table22.2 § 63.1567(a)(1) § 63.1567(a)(1)(i) § 63.1567(a)(1)(ii) § 63.1567(a)(2)	For each existing cyclic or continuous CRU, you must reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv	§ 63.1567(b)(1) § 63.1567(b)(1)-Table24.1 § 63.1567(b)(2) § 63.1567(b)(2)-Table25.1.a.(1)	§ 63.1567(b)(1)-Table24.1 § 63.1567(b)(2)-Table25.2.a.i § 63.1567(b)(2)-Table25.2.b.i	§ 63.1567(b)(6) § 63.1567(b)(7) § 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.1567(a)(2)-Table23.1 § 63.1567(a)(3) § 63.1567(b)(3) § 63.1567(b)(4) § 63.1567(b)(4)(i) § 63.1567(b)(5) § 63.1567(b)(5)-Table26.2 § 63.1567(c)(1) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d)(4) [G]§ 63.1571(e)	(dry basis), corrected to 3% oxygen.	§ 63.1567(b)(2)-Table25.1.a.(2) § 63.1567(b)(2)-Table25.1.b § 63.1567(b)(2)-Table25.1.c § 63.1567(b)(2)-Table25.1.d § 63.1567(b)(2)-Table25.1.e.(1) § 63.1567(b)(2)-Table25.1.e.(2) § 63.1567(b)(2)-Table25.1.e.(3) § 63.1567(b)(2)-Table25.1.e.(4) § 63.1567(b)(2)-Table25.2.a.i § 63.1567(b)(2)-Table25.2.b.i § 63.1567(b)(2)-Table25.2.b.ii § 63.1567(c)(1)-Table27.2 § 63.1567(c)(1)-Table28.1.a § 63.1567(c)(1)-Table28.1.b § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) § 63.1572(c) § 63.1572(c)(1) § 63.1572(c)(2) § 63.1572(c)(3) § 63.1572(c)(4) [G]§ 63.1572(d) [G]§ 63.1573(a)(1)	§ 63.1567(c)(1)-Table28.1.a § 63.1567(c)(1)-Table28.1.b § 63.1567(c)(2) § 63.1570(c) § 63.1572(c)(4) § 63.1572(c)(5) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g)
V-18	EU	63UUU-	TOC	40 CFR Part 63,	§ 63.1566(a)(1)(ii)-	For each applicable process	§ 63.1566(b)(1)	§ 63.1570(c)	§ 63.1566(b)(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		004		Subpart UUU	Table15.2 § 63.1566(a)(1) § 63.1566(a)(2) § 63.1566(a)(2)-Table16.2.a § 63.1566(a)(3) § 63.1566(a)(4) § 63.1566(a)(5) § 63.1566(b)(1)-Table17.2 § 63.1566(b)(3) § 63.1566(b)(4) § 63.1566(b)(4)(i) § 63.1566(b)(6) § 63.1566(b)(6)-Table19.2 § 63.1566(c)(1) § 63.1566(c)(2) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d)(4) [G]§ 63.1571(e)	vent for a new or existing catalytic reforming unit, you can elect to reduce uncontrolled emissions of TOC or nonmethane TOC from your process vent by 98% by weight using a control device or to a concentration of 20 ppmv (dry basis as hexane), corrected to 3 % O ₂ , whichever is less stringent (Option 2). If you vent emissions to a boiler or process heater, the vent stream must be introduced into the flame zone or any other location that will achieve the percent reduct	§ 63.1566(b)(2) § 63.1566(b)(2)-Table18.2.a § 63.1566(b)(2)-Table18.2.b § 63.1566(b)(2)-Table18.2.c § 63.1566(b)(2)-Table18.2.d § 63.1566(b)(2)-Table18.2.f § 63.1566(b)(2)-Table18.2.h § 63.1566(c)(1)-Table20.2 § 63.1566(c)(1)-Table21.2.a § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) [G]§ 63.1571(c) § 63.1572(c) § 63.1572(c)(1) § 63.1572(c)(2) § 63.1572(c)(3) § 63.1572(c)(4) [G]§ 63.1572(d)	[G]§ 63.1571(c) § 63.1572(c)(4) § 63.1572(c)(5) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1566(b)(8) § 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(f) § 63.1575(g)
V-20	EP	R1111-01	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(C) § 111.111(a)(1)(E) § 111.111(a)(2)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	§ 111.111(a)(1)(D) [G]§ 111.111(a)(1)(F) § 111.111(a)(2)	§ 111.111(a)(1)(C) § 111.111(a)(1)(D)	None
V-20	EU	60J-1	CO	40 CFR Part 60, Subpart J	§ 60.103(a) § 60.105(a)(2)	No owner or operator shall discharge or cause the discharge into the	§ 60.105(a)(2) § 60.105(a)(2)(i) § 60.106(a)	§ 60.105(a)(2) § 60.105(c)	§ 60.105(e)(2) § 60.107(f) § 60.107(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						atmosphere from any fluid catalytic cracking unit catalyst regenerator any gases that contain carbon monoxide (CO) in excess of 500 ppm by volume (dry basis).	§ 60.106(d)		
V-20	EU	60J-1	PM	40 CFR Part 60, Subpart J	§ 60.102(a)(1)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator particulate matter in excess of 1.0 kg/Mg (2.0 lb/ton) of coke burn-off in the catalyst regenerator.	§ 60.106(a) § 60.106(b) § 60.106(b)(1) § 60.106(b)(2) [G]§ 60.106(b)(3)	§ 60.105(c)	§ 60.107(f) § 60.107(g)
V-20	EU	60J-1	PM (Opacity)	40 CFR Part 60, Subpart J	§ 60.102(a)(2)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator gases exhibiting greater than 30 percent opacity, except for one six-minute average opacity reading in any one hour period.	§ 60.105(a)(1) § 60.106(a) § 60.106(b) § 60.106(b)(4)	§ 60.105(a)(1) § 60.105(c)	§ 60.105(e)(1) § 60.107(f) § 60.107(g)
V-20	EU	63UUU-001	CO	40 CFR Part 63, Subpart UUU	§ 63.1565(a)(1)-Table8.1 § 63.1565(a)(1) § 63.1565(a)(2) § 63.1565(a)(2)-Table9.1 § 63.1565(a)(3) § 63.1565(a)(4)	For each new and existing CCU subject to the NSPS for CO in 40 CFR §60.103 or electing to comply with the NSPS requirements (Option 1), CO emissions from the catalyst regenerator vent or CO	§ 63.1565(b)(1) § 63.1565(b)(1)(i) § 63.1565(c)(1)-Table13.1 § 63.1565(c)(1)-Table14.1 [G]§ 63.1571(b) § 63.1572(a)	§ 63.1570(c) [G]§ 63.1576(a) [G]§ 63.1576(b) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h)	§ 63.1565(b)(5) § 63.1565(b)(6) § 63.1570(f) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.1565(b)(3) § 63.1565(b)(4) § 63.1565(b)(4)-Table12.1 § 63.1565(c)(1) § 63.1565(c)(2) § 63.1570(a) § 63.1570(c) § 63.1570(d) [G]§ 63.1571(e)	boiler serving the CCU must not exceed 500 parts per million volume (ppmv) (dry basis).	§ 63.1572(a)(1) § 63.1572(a)(1)-Table40.4 § 63.1572(a)(2) § 63.1572(a)(3) § 63.1572(a)(4) [G]§ 63.1572(d) [G]§ 63.1573(a)(2)	§ 63.1576(i)	§ 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(e) [G]§ 63.1575(f) § 63.1575(g) [G]§ 63.1575(i)
V-20	EU	63UUU-001	PM	40 CFR Part 63, Subpart UUU	§ 63.1564(a)(1)-Table1.1 § 63.1564(a)(1) § 63.1564(a)(2) § 63.1564(a)(2)-Table2.1 § 63.1564(a)(3) § 63.1564(a)(4) § 63.1564(b)(5) § 63.1564(b)(5)-Table5.1 § 63.1564(c)(1) § 63.1564(c)(1)-Table7.1 § 63.1570(a) § 63.1570(c) § 63.1570(d)	For each new or existing CCU subject to NSPS for PM in 40 CFR §60.102, PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off in the catalyst regenerator and, if applicable, the incremental rate of PM emissions must not exceed 43.0 g/GJ (0.10 lb/MMBtu) of heat input attributable to auxiliary or supplemental fired liquid or solid fossil fuel.	§ 63.1564(b)(1) § 63.1564(b)(1)-Table3.1 § 63.1564(c)(1)-Table6.1.a.i § 63.1572(b) § 63.1572(b)(1)-Table40.1 § 63.1572(b)(2) § 63.1572(b)(3) [G]§ 63.1572(d)	§ 63.1564(b)(1)-Table3.1 § 63.1564(c)(2) § 63.1570(c) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1564(b)(6) § 63.1564(b)(7) § 63.1570(f) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(e) [G]§ 63.1575(f) § 63.1575(g) [G]§ 63.1575(i)
V-20	EU	63UUU-001	PM (OPACITY)	40 CFR Part 63, Subpart UUU	§ 63.1564(a)(1)-Table1.1 § 63.1564(a)(1) § 63.1564(a)(2) § 63.1564(a)(2)-Table2.1 § 63.1564(a)(3) § 63.1564(a)(4) § 63.1564(b)(5) § 63.1564(b)(5)-Table5.1	For each new or existing CCU subject to NSPS for PM in 40 CFR §60.102, opacity of emissions must not exceed 30%, except for one 6-minute average opacity reading in any 1-hour period.	§ 63.1564(b)(1) § 63.1564(b)(1)-Table3.1 § 63.1564(c)(1)-Table6.1.a.i § 63.1572(b) § 63.1572(b)(1)-Table40.1 § 63.1572(b)(2) § 63.1572(b)(3) [G]§ 63.1572(d)	§ 63.1564(b)(1)-Table3.1 § 63.1564(c)(2) § 63.1570(c) [G]§ 63.1576(a) [G]§ 63.1576(b) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h)	§ 63.1564(b)(6) § 63.1564(b)(7) § 63.1570(f) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.1564(c)(1) § 63.1564(c)(1)-Table7.1 § 63.1570(b) § 63.1570(c) § 63.1570(d)			§ 63.1576(i)	[G]§ 63.1575(c) [G]§ 63.1575(e) [G]§ 63.1575(f) § 63.1575(g) [G]§ 63.1575(i)
V-21	EU	63UUU-003	HYDROGEN CHLORIDE	40 CFR Part 63, Subpart UUU	§ 63.1567(a)(1)-Table22.1 § 63.1567(a)(1) § 63.1567(a)(1)(iii) § 63.1567(a)(2) § 63.1567(a)(2)-Table23.2 § 63.1567(a)(3) § 63.1567(b)(3) § 63.1567(b)(4) § 63.1567(b)(4)(i) § 63.1567(b)(4)(iii) § 63.1567(b)(5) § 63.1567(b)(5)-Table26.1 § 63.1567(c)(1) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d)(4) [G]§ 63.1571(e)	For each existing semi-regenerative CRU, you must reduce uncontrolled emissions of hydrogen chloride (HCl) by 92 percent by weight or to a concentration of 30 ppmv (dry basis), corrected to 3% oxygen.	§ 63.1567(b)(1) § 63.1567(b)(1)-Table24.2 § 63.1567(b)(2) § 63.1567(b)(2)-Table25.1.a.(2) § 63.1567(b)(2)-Table25.1.b § 63.1567(b)(2)-Table25.1.c § 63.1567(b)(2)-Table25.1.d § 63.1567(b)(2)-Table25.1.e.(1) § 63.1567(b)(2)-Table25.1.e.(2) § 63.1567(b)(2)-Table25.1.e.(4) § 63.1567(b)(2)-Table25.3 § 63.1567(c)(1)-Table27.1 § 63.1567(c)(1)-Table28.2 § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) § 63.1572(c)(1)-Table41.3 [G]§ 63.1572(d)	§ 63.1567(c)(1)-Table28.2 § 63.1567(c)(2) § 63.1570(c) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1567(b)(6) § 63.1567(b)(7) § 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g)
V-21	EU	63UUU-003	TOC	40 CFR Part 63, Subpart UUU	§ 63.1566(a)(1)(i)-Table15.1	For each applicable process vent for a new or existing	§ 63.1566(b)(1) § 63.1566(b)(1)-	§ 63.1566(c)(1)-Table21.1	§ 63.1566(b)(7) § 63.1566(b)(8)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.1566(a)(1) § 63.1566(a)(2) § 63.1566(a)(2)-Table16.1 § 63.1566(a)(3) § 63.1566(a)(4) § 63.1566(a)(5) § 63.1566(b)(3) § 63.1566(b)(4) § 63.1566(b)(6) § 63.1566(b)(6)-Table19.1 § 63.1566(c)(1) § 63.1566(c)(2) § 63.1570(a) § 63.1570(b) § 63.1570(c) § 63.1570(d) [G]§ 63.1571(e)	catalytic reforming unit, you must vent emissions of total organic compounds (TOC) to a flare that meets the control device requirements in §63.11(b) (Option 1). Visible emissions from a flare must not exceed a total of 5 minutes during any 2-hour operating period.	Table17.1 § 63.1566(b)(2) § 63.1566(b)(2)-Table18.1.a § 63.1566(b)(2)-Table18.1.b § 63.1566(c)(1)-Table20.1 § 63.1566(c)(1)-Table21.1 § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) [G]§ 63.1572(d)	§ 63.1570(c) [G]§ 63.1576(a) § 63.1576(c) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1570(f) § 63.1571(a) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g)
V-5	EU	R112-01	SO ₂	30 TAC Chapter 112, Sulfur Compounds	§ 112.7(a) § 112.7(b)	No person may cause, suffer, allow, or permit emissions of SO ₂ to exceed the emission limits specified for stack effluent flow rates < 4,000 scfm as determined by the specified equation.	§ 112.2(a) ** See CAM Summary	§ 112.2(c)	§ 112.2(b)
V-5	PRO	60J-01	SO ₂	40 CFR Part 60, Subpart J	§ 60.104(a)(2)(i)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any Claus sulfur recovery plant with a reduction control system followed by incineration any gases containing in excess of 250 ppm by volume of SO ₂ at zero percent excess air.	[G]§ 60.105(a)(5) § 60.106(a) [G]§ 60.106(f) ** See CAM Summary	[G]§ 60.105(a)(5)	§ 60.105(e)(4)(i) § 60.107(d) § 60.107(f) § 60.107(g)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
V-5	EU	63UUU-005a	SO ₂	40 CFR Part 63, Subpart UUU	§ 63.1568(a)(1)(i)-Table29.2.a § 63.1568(a)(1) § 63.1568(a)(2) § 63.1568(a)(2)-Table30.2 § 63.1568(a)(3) § 63.1568(b)(3) § 63.1568(b)(4) § 63.1568(b)(5) § 63.1568(b)(5)-Table33.2.a § 63.1568(c)(1) § 63.1568(c)(1)-Table35.2 § 63.1568(c)(2) § 63.1570(a) § 63.1570(c) § 63.1570(d) [G]§ 63.1571(e)	For each new or existing SRU not subject to the NSPS for sulfur oxides in 40 CFR §60.104(a)(2) and electing to meet the NSPS requirements (Option 1), you must meet the emission limit for each process vent of 250 ppmv (dry basis) of SO ₂ at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	§ 63.1568(b)(1) § 63.1568(b)(1)-Table31.2.a § 63.1568(b)(2) § 63.1568(b)(2)-Table32.1 § 63.1568(c)(1)-Table34.2.a § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) § 63.1572(a) § 63.1572(a)(1) § 63.1572(a)(1)-Table40.5 § 63.1572(a)(1)-Table40.9 § 63.1572(a)(2) § 63.1572(a)(3) § 63.1572(a)(4) [G]§ 63.1572(d)	§ 63.1568(b)(1)-Table31.2.a § 63.1568(c)(1)-Table34.2.a § 63.1570(c) [G]§ 63.1576(a) [G]§ 63.1576(b) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1568(b)(6) § 63.1568(b)(7) § 63.1570(f) § 63.1571(a) [G]§ 63.1574(a) § 63.1574(d) § 63.1574(d)-Table42.1 § 63.1574(d)-Table42.2 § 63.1574(d)-Table42.3 § 63.1575(a) § 63.1575(a)-Table43.1 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(e) [G]§ 63.1575(f) § 63.1575(g)
VT-11	EP	63CC-02	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(c)(1)	All miscellaneous process vents from petroleum refining process units meeting the criteria in paragraph (a) of this section.	[G]§ 63.645(g) § 63.645(h) § 63.645(h)(1) § 63.645(h)(2)	§ 63.655(g)(7)(ii) § 63.655(i) § 63.655(i)(5)	§ 63.645(h)(2) § 63.655(f) § 63.655(f)(1)(ii) § 63.655(g) § 63.655(g)(7) § 63.655(g)(7)(i)
VT-15	EP	60NNN-01	VOC/TOC	40 CFR Part 60, Subpart NNN	§ 60.662(b) § 63.670	Each affected facility shall combust the emissions in a flare that meets the requirements of § 60.18.	§ 60.663(b) § 60.663(b)(1) § 60.663(b)(2) § 60.664(a) § 60.664(d) § 60.664(e) § 60.664(e)(1)(i) [G]§ 60.664(e)(2) § 60.664(e)(3) § 60.664(e)(4) § 60.664(e)(5)	§ 60.663(b)(2) § 60.665(b) § 60.665(b)(3) § 60.665(d) § 60.665(f)	§ 60.665(a) § 60.665(b) § 60.665(b)(3) § 60.665(k) § 60.665(l) § 60.665(l)(2) § 60.665(l)(4)

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							§ 60.664(e)(6)		
VT-15	EP	63CC-03	§112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.643(a) § 63.643(a)(1) § 63.670	The owner or operator of a Group 1 miscellaneous process vent as defined in §63.641 shall comply with the requirements of either paragraphs (a)(1) or (a)(2) of this section.	§ 63.644(a) § 63.644(a)(2) § 63.644(e) § 63.645(a) § 63.645(i) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 63.655(i) § 63.655(i)(5)	§ 63.642(f) [G]§ 63.655(e) § 63.655(f) § 63.655(f)(1)(ii) [G]§ 63.655(f)(1)(iv) [G]§ 63.655(f)(2) § 63.655(f)(4) § 63.655(g) § 63.655(g)(6) § 63.655(h)
WW12	EU	61FF-01	Benzene	40 CFR Part 61, Subpart FF	§ 61.347(a)(1) § 61.347(a)(1)(i)(A) § 61.347(a)(1)(i)(B) § 61.347(b) § 61.347(c) § 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g) § 63.670	Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the oil-water separator to a control device.	§ 61.347(a)(1)(i)(A) § 61.347(b) § 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(c) § 61.354(c)(3) [G]§ 61.355(h) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 61.354(c) § 61.354(c)(3) § 61.356(d) § 61.356(f) § 61.356(f)(1) § 61.356(g) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(2) § 61.356(j)(3) § 61.356(j)(7)	§ 61.357(d)(7) § 61.357(d)(7)(iv) § 61.357(d)(7)(iv)(F)
WW13	EU	61FF-01	Benzene	40 CFR Part 61, Subpart FF	§ 61.347(a)(1) § 61.347(a)(1)(i)(A) § 61.347(a)(1)(i)(B) § 61.347(b) § 61.347(c) § 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g)	Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the oil-water separator to a control device.	§ 61.347(a)(1)(i)(A) § 61.347(b) § 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(c) § 61.354(c)(3) [G]§ 61.355(h) § 63.670(g) § 63.670(h) § 63.670(h)(1) § 63.670(j) § 63.670(j)(1)	§ 61.354(c) § 61.354(c)(3) § 61.356(d) § 61.356(f) § 61.356(f)(1) § 61.356(g) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(2) § 61.356(j)(3) § 61.356(j)(7)	§ 61.357(d)(7) § 61.357(d)(7)(iv) § 61.357(d)(7)(iv)(F)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.670				

Additional Monitoring Requirements

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CAM Summary

Unit/Group/Process Information	
ID No.: PROACID2	
Control Device ID No.: V-29SCBR	Control Device Type: SO2 Scrubber
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R112-01
Pollutant: SO ₂	Main Standard: § 112.6(a)
Monitoring Information	
Indicator: Sulfur Dioxide Concentration	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: SO ₂ emissions may not exceed 189.77 lb/hr, based on the equation in 30 TAC 112.6. (Stack Effluent Flow Rate, q=5469 scfm)	
CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record sulfur dioxide emissions in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. In addition, monitor oxygen or carbon dioxide with a CEMS operated in accordance with above CEMS procedures.	

CAM Summary

Unit/Group/Process Information	
ID No.: PROACID2	
Control Device ID No.: V-29SCBR	Control Device Type: SO2 Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart H	SOP Index No.: 60H-01
Pollutant: SO ₂	Main Standard: § 60.82(a)
Monitoring Information	
Indicator: Sulfur Dioxide Concentration	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: It is a deviation if SO ₂ emissions exceed 2 kg per metric ton of acid produced (4 lbs per ton).	
CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record sulfur dioxide emissions in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. In addition, monitor oxygen or carbon dioxide with a CEMS operated in accordance with above CEMS procedures.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-16	
Control Device ID No.: V-16INC	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R112-01
Pollutant: SO ₂	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: The minimum combustion temperature is 1200 degrees F (649 C)	
<p>CAM Text: The monitoring device should be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> ± 2% of reading; or ± 2.5 degrees Celsius. 	

CAM Summary

Unit/Group/Process Information	
ID No.: V-16	
Control Device ID No.: V-16INC	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R112-01
Pollutant: SO ₂	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: SO ₂ Mass Emissions in Pounds per Hour	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: SO ₂ emissions may not exceed 580.11 lb/hr, based on the equation in 30 TAC 112.7. (Stack Effluent Flow Rate, q=5009 scfm)	
CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record the mass emissions rate of sulfur dioxide expressed in pounds per hour in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-16	
Control Device ID No.: V-16INC	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J-01
Pollutant: SO ₂	Main Standard: § 60.104(a)(2)(i)
Monitoring Information	
Indicator: Sulfur Dioxide Concentration	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: It is a deviation if emissions exceed 250 ppm by volume (dry basis) of sulfur dioxide (SO ₂) at zero percent excess air.	
CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record sulfur dioxide emissions in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. In addition, monitor oxygen or carbon dioxide with a CEMS operated in accordance with above CEMS procedures.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-5	
Control Device ID No.: V-5INC	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R112-01
Pollutant: SO ₂	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: The minimum combustion temperature is 1200 degrees F (649 C)	
<p>CAM Text: The monitoring device should be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> ± 2% of reading; or ± 2.5 degrees Celsius. 	

CAM Summary

Unit/Group/Process Information	
ID No.: V-5	
Control Device ID No.: V-5INC	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R112-01
Pollutant: SO ₂	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: SO ₂ Mass Emissions in Pounds per Hour	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: SO ₂ emissions may not exceed 2971.70 lb/hr, based in the equation in 30 TAC 112.7 (Stack Effluent Flow Rate, q=3130 scfm)	
CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record the mass emissions rate of sulfur dioxide expressed in pounds per hour in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-5	
Control Device ID No.: V-5INC	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J-01
Pollutant: SO ₂	Main Standard: § 60.104(a)(2)(i)
Monitoring Information	
Indicator: Sulfur Dioxide Concentration	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: It is a deviation if emissions exceed 250 ppm by volume (dry basis) of sulfur dioxide (SO ₂) at zero percent excess air.	
CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record sulfur dioxide emissions in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. In addition, monitor oxygen or carbon dioxide with a CEMS operated in accordance with above CEMS procedures.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-VT-20	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-01
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: Opacity above 20%	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-VT2-20	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-01
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per week	
Averaging Period: n/a	
Deviation Limit: Opacity above 15%	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-VT-30	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-02
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(A)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per quarter	
Averaging Period: n/a	
Deviation Limit: Opacity above 30%	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying applicable requirement. If there is no corresponding opacity limit in the underlying applicable requirement, the maximum opacity will be established using the most recent performance test. If the result of the Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: OX-001	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1121-2
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: Opacity above 20%	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

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The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
1150-TANK-TXX6	N/A	40 CFR Part 60, Subpart Kb	Capacity greater than or equal to 151 m3 storing a liquid with a maximum true vapor pressure less than 0.5 psia.
ADDITIVETK	N/A	40 CFR Part 60, Subpart Kb	Capacity greater than or equal to 151 m3 storing a liquid with a maximum true vapor pressure less than 0.5 psia.
B-12	N/A	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fuel.
B-12	N/A	40 CFR Part 60, Subpart D	Fossil-fuel-fired steam generating unit firing fossil fuel at a heat input rate of less than 73 MW (250 MMBtu/hr).
E-7	N/A	40 CFR Part 60, Subpart JJJJ	Commenced construction/modification/reconstruction before June 12, 2006
F-20	N/A	40 CFR Part 63, Subpart Q	Not operated with chromium-based water treatment chemicals on or after 09/08/1994.
F-21	N/A	40 CFR Part 63, Subpart Q	Not operated with chromium-based water treatment chemicals on or after 09/08/1994.
F-47	N/A	40 CFR Part 63, Subpart Q	Not operated with chromium-based water treatment chemicals on or after 09/08/1994.
FCCUC2	N/A	40 CFR Part 63, Subpart CC	Compressor is not in organic HAP service (less than 5 weight percent total organic HAPs).
FL-6	N/A	40 CFR Part 60, Subpart A	On January 30, 2019, flares that are subject to the provisions 40 CFR 60.18 or 63.11 and subject to MACT CC are required to comply only with the provisions specified in MACT CC.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
FL-6	N/A	40 CFR Part 60, Subpart QQQ	A Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR 60, Subpart QQQ is required to comply only with 40 CFR 63, Subpart CC.
FL-6	N/A	40 CFR Part 63, Subpart A	On January 30, 2019, flares that are subject to the provisions 40 CFR 60.18 or 63.11 and subject to MACT CC are required to comply only with the provisions specified in MACT CC.
FL-9	N/A	40 CFR Part 60, Subpart J	The unit is not a fuel gas combustion device as defined in 40 CFR 60.101(d).
FWPMP-3	N/A	40 CFR Part 60, Subpart IIII	Commenced construction/modification/reconstruction before July 11, 2005
FWPMP-4	N/A	40 CFR Part 60, Subpart IIII	Commenced construction/modification/reconstruction before July 11, 2005
GRP-BOILER1	B-10, B-11, B-8, B-9	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fuel.
GRP-BOILER1	B-10, B-11, B-8, B-9	40 CFR Part 60, Subpart D	Construction or modification commenced before August 17, 1971.
GRP-BOILER2	B-4, B-6	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fuel.
GRP-BOILER2	B-4, B-6	40 CFR Part 60, Subpart D	Construction or modification commenced before August 17, 1971.
GRPCCG1WW	S-227, S-228	40 CFR Part 60, Subpart QQQ	Storage vessels, including slop oil tanks and other auxiliary tanks, that are subject to 60.112b and associated requirements of 40 CFR Part 60, Subpart Kb, are not subject to the requirements of this section.

Permit Shield

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Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GRP-COMP2	RLEC1, RLEC2	40 CFR Part 63, Subpart CC	Compressors operate in organic HAP service less than 300 hours.
GRP-FLARE	FL-1, FL-3, FL-4, FL-8	40 CFR Part 60, Subpart A	On January 30, 2019, flares that are subject to the provisions 40 CFR 60.18 or 63.11 and subject to MACT CC are required to comply only with the provisions specified in MACT CC.
GRP-FLARE	FL-1, FL-3, FL-4, FL-8	40 CFR Part 63, Subpart A	On January 30, 2019, flares that are subject to the provisions 40 CFR 60.18 or 63.11 and subject to MACT CC are required to comply only with the provisions specified in MACT CC.
GRP-HTR-FG	H-13, H-14, H-15, H-18, H-26, H-28, H-34, H-36, H-37, H-38, H-39, H-40, H-41, H-42, H-43, H-45, H-46, H-48, H-6, H-8, H-80	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel.
GRP-HTR-FG2	H-1, H-11, H-9	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel.
GRP-PRESSTK	S-096, S-102, S-103, S-104, S-105, S-106, S-107, S-108, S-109, S-110, S-111, S-112, S-113, S-114, S-115, S-116, S-117, S-118, S-119, S-120, S-121, S-122, S-123, S-124, S-125, S-126, S-127, S-128, S-130, S-131, S-132, S-133, S-134, S-135, S-146, S-151, S-152, S-153, S-154, S-155, S-156, S-178, S-189, S-190,	40 CFR Part 60, Subpart Kb	NSPS Kb does not apply to pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
	S-191, S-201, S-208		
GRP-PRESSTK	S-096, S-102, S-103, S-104, S-105, S-106, S-107, S-108, S-109, S-110, S-111, S-112, S-113, S-114, S-115, S-116, S-117, S-118, S-119, S-120, S-121, S-122, S-123, S-124, S-125, S-126, S-127, S-128, S-130, S-131, S-132, S-133, S-134, S-135, S-146, S-151, S-152, S-153, S-154, S-155, S-156, S-178, S-189, S-190, S-191, S-201, S-208	40 CFR Part 63, Subpart CC	Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere are not considered storage tanks.
GRP-PRESSTK	S-096, S-102, S-103, S-104, S-105, S-106, S-107, S-108, S-109, S-110, S-111, S-112, S-113, S-114, S-115, S-116, S-117, S-118, S-119, S-120, S-121, S-122, S-123, S-124, S-125, S-126, S-127, S-128, S-130, S-131, S-132, S-133, S-134, S-135, S-146, S-151, S-152, S-153, S-154, S-155, S-156, S-178, S-189, S-190, S-191, S-201, S-208	40 CFR Part 63, Subpart EEEE	Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere are not considered storage tanks.
GRP-TKNOVT	S-205, S-206, S-207	40 CFR Part 60, Subpart Kb	Unit is a process tank which is excluded from the storage tank definition.
GRP-TKNOVT	S-205, S-206, S-207	40 CFR Part 63, Subpart CC	Gas stream is not discharged directly to the atmosphere, routed to a control device prior to

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			discharge to the atmosphere, or diverted through a product recovery device prior to control or discharge to the atmosphere.
GRP-TKNOVT	S-205, S-206, S-207	40 CFR Part 63, Subpart EEEE	Unit is a process tank which is excluded from the storage tank definition.
GRPTOLUBE	S-168, S-173, S-174, S-175	40 CFR Part 60, Subpart K	Construction, reconstruction, or modification commenced before June 11, 1973.
GRPTOLUBE	S-168, S-173, S-174, S-175	40 CFR Part 63, Subpart CC	Emission units that do not contain HAPs are not subject to MACT CC.
GRPTOLUBE	S-168, S-173, S-174, S-175	40 CFR Part 63, Subpart EEEE	Process vessels are not included in the definition of "Storage tank" under MACT EEEE.
GRPTSLCO	S-179, S-180	40 CFR Part 60, Subpart Kb	Capacity < 19,800 gallons
GRPTSLCO	S-179, S-180	40 CFR Part 63, Subpart CC	Tank has capacity < 40 m3 and therefore doesn't meet the definition of storage vessel.
GRPTSLCO	S-179, S-180	40 CFR Part 63, Subpart EEEE	Tanks store material with an annual average true vapor pressure less than 0.1 psia, which does not meet the definition of "organic liquid" under MACT EEEE.
GRPTSWKBE	S-195, S-196	40 CFR Part 60, Subpart QQQ	Storage vessels that are subject to the standards in 40 CFR 60, Subparts Kb are not subject to the requirements of 40 CFR 60, Subpart QQQ.
GRPTSWKBE	S-195, S-196	40 CFR Part 63, Subpart EEEE	Wastewater tanks are excluded from the definition of storage tanks.
GRPTSWKBI	S-197, S-199	40 CFR Part 60, Subpart QQQ	Storage vessels that are subject to the standards in 40 CFR 60, Subparts Kb are not subject to the

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			requirements of 40 CFR 60, Subpart QQQ.
GRPTSWKBI	S-197, S-199	40 CFR Part 63, Subpart EEEE	Wastewater tanks are excluded from the definition of storage tanks.
GRP-VT-1	VT-1, VT-13, VT-22	40 CFR Part 63, Subpart G	No chemical manufacturing process units subject to SOCMH HON requirements.
GRP-VT-2	VT-2, VT-8	40 CFR Part 63, Subpart G	No chemical manufacturing process units subject to SOCMH HON requirements.
GRP-VT-EX	VT-10, VT-12, VT-14, VT-17, VT-18, VT-19, VT-20, VT-21, VT-23, VT-3, VT-4, VT-6, VT-7	40 CFR Part 63, Subpart CC	Gas streams containing less than 20 ppmv of organic HAP do not meet the definition of "miscellaneous process vent".
GRP-WW	WW1, WW10, WW14, WW2, WW3, WW5, WW7, WW8, WW9	40 CFR Part 60, Subpart Kb	Unit is a process tank which is excluded from the storage tank definition.
GRP-WW	WW1, WW10, WW14, WW2, WW3, WW5, WW7, WW8, WW9	40 CFR Part 60, Subpart QQQ	A Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR 60, Subpart QQQ is required to comply only with 40 CFR 63, Subpart CC.
GRP-WW	WW1, WW10, WW14, WW2, WW3, WW5, WW7, WW8, WW9	40 CFR Part 63, Subpart EEEE	Wastewater is not included in the definition of "organic liquid" under MACT EEEE.
H-2	N/A	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel.
H-27	N/A	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel.
H-64	N/A	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			fuel.
H-88	N/A	30 TAC Chapter 112, Sulfur Compounds	Combustion unit is not fired with liquid or solid fossil fuel.
L-11	N/A	40 CFR Part 61, Subpart BB	The facility only loads benzene-laden waste, gasoline, crude oil, natural gas liquids, petroleum distillates, or benzene-laden liquid from coke by-products.
L-15	N/A	40 CFR Part 63, Subpart CC	The loading rack does not meet the definition of gasoline loading rack per 40 CFR 63.641
OLYMP-BLRHS	N/A	40 CFR Part 60, Subpart JJJJ	Commenced construction/modification/reconstruction before June 12, 2006
OSTUG1R	N/A	40 CFR Part 63, Subpart GGGGG	Remediation activities performed under the Resource Conservation and Recovery Act (RCRA) corrective action are not subject to this subpart.
OSTUG1RFUG	N/A	40 CFR Part 63, Subpart GGGGG	Remediation activities performed under the Resource Conservation and Recovery Act (RCRA) corrective action are not subject to this subpart.
OSTUG1RVAC	N/A	40 CFR Part 63, Subpart GGGGG	Remediation activities performed under the Resource Conservation and Recovery Act (RCRA) corrective action are not subject to this subpart.
RX-MSAT	N/A	40 CFR Part 60, Subpart NNN	The gas stream does not vent directly or indirectly to the atmosphere, so it does not meet the definition of a "vent stream" in 60.661
RX-MSAT	N/A	40 CFR Part 60, Subpart RRR	Does not meet the definition of a reactor process unit under 40 CFR 60.701.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
S-044	N/A	40 CFR Part 60, Subpart Kb	Capacity greater than or equal to 151 m3 storing a liquid with a maximum true vapor pressure less than 0.5 psia.
S-044	N/A	40 CFR Part 63, Subpart CC	Tank does not contain a HAP.
S-044	N/A	40 CFR Part 63, Subpart EEEE	Tank does not contain a HAP.
S-142	N/A	40 CFR Part 60, Subpart K	Construction, reconstruction, or modification commenced before June 11, 1973.
S-184	N/A	40 CFR Part 63, Subpart EEEE	Wastewater tanks are excluded from the definition of storage tanks.
SUBSTN 32	N/A	40 CFR Part 60, Subpart IIII	Commenced construction/modification/reconstruction before July 11, 2005
VT-11	N/A	40 CFR Part 63, Subpart G	No chemical manufacturing process units subject to SOCMI HON requirements.
VT-15	N/A	40 CFR Part 63, Subpart G	No chemical manufacturing process units subject to SOCMI HON requirements.
WW12	N/A	40 CFR Part 60, Subpart QQQ	A Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR 60, Subpart QQQ is required to comply only with 40 CFR 63, Subpart CC.
WW12	N/A	40 CFR Part 63, Subpart VV	Facility does not control air emissions from an oil-water and organic-water separator for which another subpart of 40 CFR 60, 61, or 63 references

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
WW13	N/A	40 CFR Part 60, Subpart QQQ	A Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR 60, Subpart QQQ is required to comply only with 40 CFR 63, Subpart CC.
WW13	N/A	40 CFR Part 63, Subpart VV	Facility does not control air emissions from an oil-water and organic-water separator for which another subpart of 40 CFR 60, 61, or 63 references
WW4	N/A	40 CFR Part 60, Subpart Kb	Unit is a process tank which is excluded from the storage tank definition.
WW4	N/A	40 CFR Part 60, Subpart QQQ	Storage tank contains treated water and is not used for storage of petroleum liquids, including oily wastewater.
WW4	N/A	40 CFR Part 61, Subpart FF	Streams are not benzene laden waste streams.
WW4	N/A	40 CFR Part 63, Subpart CC	Storage tank contains treated water and does not contain a Group1 wastewater stream.
WW6	N/A	40 CFR Part 60, Subpart Kb	Unit is a process tank which is excluded from the storage tank definition.
WW6	N/A	40 CFR Part 60, Subpart QQQ	Storage tank contains treated water and is not used for storage of petroleum liquids, including oily wastewater.
WW6	N/A	40 CFR Part 61, Subpart FF	Streams are not benzene laden waste streams.
WW6	N/A	40 CFR Part 63, Subpart CC	Storage tank contains treated water and does not contain a Group1 wastewater stream.

New Source Review Authorization References

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New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: GHGPSDTX20*	Issuance Date: 04/25/2017
PSD Permit No.: PSDTX861M3	Issuance Date: 04/06/2018
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 145851	Issuance Date: 05/23/2017
Authorization No.: 9708	Issuance Date: 04/06/2018
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.142	Version No./Date: 12/24/1998
Number: 106.144	Version No./Date: 09/04/2000
Number: 106.183	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000
Number: 106.492	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.512	Version No./Date: 06/13/2001
Number: 106.533	Version No./Date: 07/04/2004
Number: 7	Version No./Date: 08/30/1988

* For reference, EPA issued permit PSD-TX-861-GHG has been assigned TCEQ permit number GHGPSDTX20.

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
1150-TANK-TXX6	PIPELINE B100 BLEND TANK	106.261/11/01/2003, 106.472/09/04/2000
2021FUG	REMEDATION FUGITIVES	106.533/07/04/2004
2021VAC	REMEDATION VAC TRUCK TRANSFER	106.533/07/04/2004
2022FUG	REMEDATION FUGITIVES	106.533/07/04/2004
2022VAC	REMEDATION VAC TRUCK TRANSFER	106.533/07/04/2004
ADDITIVETK	BIODIESEL ADDITIVE TANK	106.261/11/01/2003, 106.472/09/04/2000
AIRCOMP1	AIR COMPRESSOR ENGINE	106.511/09/04/2000
AIRCOMP2	AIR COMPRESSOR ENGINE	106.511/09/04/2000
AIRCOMP3	AIR COMPRESSOR ENGINE	106.511/09/04/2000
B-10	NO. 18 BOILER VENT	9708, PSDTX861M3
B-10	NO.18 BOILER	9708, PSDTX861M3
B-11	NO. 19 BOILER VENT	9708, PSDTX861M3
B-11	NO.19 BOILER	9708, PSDTX861M3
B-12	600# BOILER	9708, PSDTX861M3
B-12	600# BOILER VENT	9708, PSDTX861M3
B-22A	BOILER NO. 22A	9708, GHGPSDTX20, PSDTX861M3
B-22B	BOILER NO. 22B	9708, GHGPSDTX20, PSDTX861M3
B-4	NO. 11 BOILER VENT	9708, PSDTX861M3
B-4	NO.11 BOILER	9708, PSDTX861M3
B-6	NO. 13 BOILER VENT	9708, PSDTX861M3
B-6	NO.13 BOILER	9708, PSDTX861M3

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
B-8	NO. 15 BOILER VENT	9708, PSDTX861M3
B-8	NO.15 BOILER	9708, PSDTX861M3
B-9	NO 16 BOILER VENT	9708, PSDTX861M3
B-9	NO.16 BOILER	9708, PSDTX861M3
CAS10	WSD OF TURPIN PUMP HOUSE IN PUMP STATION	106.533/07/04/2004
CAS11	TK-2022 REMEDIATION REC WELL EAST	106.533/07/04/2004
CAS12	TK-2021 REMEDIATION REC WELL EAST	106.533/07/04/2004
CAS13	TK-2024 REMEDIATION REC WELL CANISTER	106.533/07/04/2004
CAS14	TK-2023 REMEDIATION REC WELL CANISTER	106.533/07/04/2004
CAS15	OILY WATER SUMP	9708, PSDTX861M3
CAS1	OILY SUMP #7 CAS	9708, PSDTX861M3
CAS2	CRUDE SUMP CAS	9708, PSDTX861M3
CAS3	TANK FARM CAS (150M2)	9708, PSDTX861M3
CAS4	TANK FARM CAS (150M1)	9708, PSDTX861M3
CAS5	P&T CRUDE SUMP 1	9708, PSDTX861M3
CAS6	P&T CRUDE SUMP 2	9708, PSDTX861M3
CAS7	RAILCAR SUMP	9708, PSDTX861M3
CAS8	20 FT WSD OF 990-004 MAIN REFINERY SEAL DRUM	9708, PSDTX861M3
E-7	UNIFINER (CLARK) COMPRESSOR ENGINE	9708, 106.511/09/04/2000, PSDTX861M3
ENGEMERG-1	EMERGENCY ENGINE ADMIN BLDG	106.511/09/04/2000
F-20	NO. 1 REFINERY COOLING TOWER	9708, PSDTX861M3

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
F-21	NO. 2 GASOLINE PLANT COOLING TOWER	9708, PSDTX861M3
F-47	NO 2 REFINERY COOLING TOWER	9708, PSDTX861M3
FCCUC2	FCCU COMPRESSOR 420-CX1	9708, PSDTX861M3
FL-1	NO. 1 MAIN REFINERY FLARE	9708, 106.476/09/04/2000, PSDTX861M3
FL-3	FCC FLARE	9708, 106.476/09/04/2000, PSDTX861M3
FL-4	HCU FLARE	9708, 106.476/09/04/2000, PSDTX861M3
FL-6	WASTEWATER FLARE	9708, PSDTX861M3
FL-7	BULK TERMINAL VAPOR COMBUSTOR	9708, PSDTX861M3
FL-8	NO. 2 MAIN REFINERY FLARE	9708, 106.476/09/04/2000, PSDTX861M3
FL-9	BRINE DEGAS DRUM	9708, PSDTX861M3
FUG-CC-VV	MACT CC FUGITIVES (EXISTING)	9708, 106.261/11/01/2003, GHGPSDTX20, PSDTX861M3
FUG-GGGA	GGGA FUGITIVES	9708, GHGPSDTX20, PSDTX861M3
FUG-LPG	PROPANE - FUGITIVE COMPONENTS	9708, GHGPSDTX20, PSDTX861M3
FWPMP-3	DRIVER FOR FIREWATER PUMP 3-BULK STATION	9708, 106.511/09/04/2000, PSDTX861M3
FWPMP-4	DRIVER FOR FIREWATER PUMP 4-BULK STATION	9708, 106.511/09/04/2000, PSDTX861M3
FWPMP-5	FIREWATER PUMP EAST SIDE (EAST)	106.511/09/04/2000
FWPMP-6	FIREWATER PUMP EAST SIDE (WEST)	106.511/09/04/2000
H-11	NO 2 CRUDE HEATER VENT (ANDERSON)	9708, PSDTX861M3
H-11	NO.2 CRUDE CHARGE HEATER (ANDERSON)	9708, PSDTX861M3
H-13	GAS OIL FRACTIONATOR CHARGE HEATER	9708, 106.183/09/04/2000, PSDTX861M3

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
H-14	UNIFINER CHARGE HEATER	9708, PSDTX861M3
H-15	NO. 1 NAPHTHA HYDROTREATER CHARGE HEATER	9708, PSDTX861M3
H-18	NO.1 REFORMER CHARGE HEATER (CHARGE 3,4 INTER-HTRS	9708, PSDTX861M3
H-1	NO.1 CRUDE CHARGE HEATER	9708, PSDTX861M3
H-26	NO. 2 VACUUM HEATER	9708, PSDTX861M3
H-27	PP MOL. SIEVE REGENERATION HEATER	9708, PSDTX861M3
H-28	ACTIVE BUTANE OXYGENATE HEATER	9708, PSDTX861M3
H-2	NO. 1 VACUUM CHARGE HEATER	9708, GHGPSDTX20, PSDTX861M3
H-34	NO. 1 REFORMER STABILIZER REBOILER	9708, PSDTX861M3
H-36	NO. 2 NAPHTHA HYDROTREATER CHARGE HEATER	9708, PSDTX861M3
H-37	NO. 2 NAPHTHA HYDROTREATER DESULFURIZER REBOILER	9708, PSDTX861M3
H-38	NO. 2 REFORMER CHARGE HTR (CHARGE 3, 4-INTER-HTRS)	9708, PSDTX861M3
H-39	NO. 3 REFORMER STABILIZER REBOILER	9708, PSDTX861M3
H-40	NO. 1 PDA ASPHALT HEATER	9708, PSDTX861M3
H-41	NO. 2 CRUDE CHARGE HEATER	9708, PSDTX861M3
H-42	HCU RECYCLE HEATER	9708, PSDTX861M3
H-43	HCU DEC4 REBOILER HEATER	9708, PSDTX861M3
H-45	NO. 1 NAPHTHA HYDROTREATER DESULFURIZER REBOILER	9708, PSDTX861M3
H-46	NO. 1 REFORMER (NO. 1 INTERHEATER)	9708, PSDTX861M3
H-48	DIESEL HYDROTREATER CHARGE HEATER	9708, PSDTX861M3
H-64	NO. 4 HYDROTREATER CHARGE HEATER	9708, GHGPSDTX20, PSDTX861M3

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
H-6	DAGO HEATER	9708, PSDTX861M3
H-80	FCC GAS HDS CHARGE HEATER	9708, PSDTX861M3
H-88	ACID PLANT FEED HEATER	9708, PSDTX861M3
H-8	HCU FRACTIONATION HEATER (N. PETRO CHEM)	9708, PSDTX861M3
H-9	NO. 2 CRUDE HEATER (S. PETRO CHEM)	9708, PSDTX861M3
L-11	NEW TRUCK LOADING RACK	9708, 106.473/09/04/2000, PSDTX861M3
L-15	RAIL CAR LOADING RACK	9708, PSDTX861M3
OLYMP-BLRHS	OLYMPIAN - BORDER HOUSE	9708, 106.512/06/13/2001, PSDTX861M3
OLYMP-MNOFC	OLYMPIAN - EAST MAIN OFFICE	9708, PSDTX861M3
OSTUG1RFUG	REMEDIATION FUGITIVES	106.533/07/04/2004
OSTUG1R	REMEDIATION TANK	106.533/07/04/2004
OSTUG1RVAC	REMEDIATION VAC TRUCK TRANSFER	106.533/07/04/2004
OW3TK	OW3 REMEDIATION TANK	106.533/07/04/2004
OW3VAC	OW3 REMEDIATION VAC TRUCK TRANSFER	106.533/07/04/2004
OWFUG	OW2, OW3, & OW15 REMEDIATION FUGITIVES	106.533/07/04/2004
OX-001	WASTEWATER SLUDGE CENTRIFUGE	9708, PSDTX861M3
PROACID1	ACID PLANT MIST ELIMINATOR VENT	9708, PSDTX861M3
PROACID2	SULFURIC ACID PLANT STACK	9708, PSDTX861M3
PROFFTRMT	DEEP WELL INJECTION	9708, PSDTX861M3
RLEC1	RLE EMERGENCY ELECTRIC COMPRESSOR 1	9708, PSDTX861M3
RLEC2	RLE EMERGENCY ELECTRIC COMPRESSOR 2	9708, PSDTX861M3

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
RX-MSAT	REFORMER SPLITTER COLUMN	9708, PSDTX861M3
S-044	TANK 144	9708, PSDTX861M3
S-096	TANK 135	106.476/09/04/2000
S-102	TANK 501	9708, PSDTX861M3
S-103	TANK 302	106.476/09/04/2000
S-104	TANK 303	106.476/09/04/2000
S-105	TANK 136	106.476/09/04/2000
S-106	TANK 192	106.476/09/04/2000
S-107	TANK 503	106.476/09/04/2000
S-108	TANK 307	106.476/09/04/2000
S-109	TANK 308	106.476/09/04/2000
S-110	TANK 309	106.476/09/04/2000
S-111	TANK 310	106.476/09/04/2000
S-112	TANK 311	106.476/09/04/2000
S-113	TANK 312	106.476/09/04/2000
S-114	TANK 313	106.476/09/04/2000
S-115	TANK 314	106.476/09/04/2000
S-116	TANK 315	106.476/09/04/2000
S-117	TANK 316	106.476/09/04/2000
S-118	TANK 317	106.476/09/04/2000
S-119	TANK 318	106.476/09/04/2000

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-120	TANK 319	106.476/09/04/2000
S-121	TANK 320	106.476/09/04/2000
S-122	TANK 321	106.476/09/04/2000
S-123	TANK 322	106.476/09/04/2000
S-124	TANK 323	106.476/09/04/2000
S-125	TANK 324	106.476/09/04/2000
S-126	TANK 325	106.476/09/04/2000
S-127	TANK 326	106.476/09/04/2000
S-128	TANK 327	106.476/09/04/2000
S-130	TANK 329	106.476/09/04/2000
S-131	TANK 330	106.476/09/04/2000
S-132	TANK 305	106.476/09/04/2000
S-133	TANK 306	106.476/09/04/2000
S-134	TANK 195	106.476/09/04/2000
S-135	TANK 502	106.476/09/04/2000
S-142	TANK 232	9708, PSDTX861M3
S-146	TANK 201	106.476/09/04/2000
S-151	TANK 331	106.476/09/04/2000
S-152	TANK 332	106.476/09/04/2000
S-153	TANK 333	106.476/09/04/2000
S-154	TANK 334	106.476/09/04/2000

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-155	TANK 335	106.476/09/04/2000
S-156	TANK 336	106.476/09/04/2000
S-168	N LUBE TANK (T-9)	9708, PSDTX861M3
S-173	3RD FROM S LUBE TANK (T-3)	9708, PSDTX861M3
S-174	2ND FROM S LUBE TANK (T-2)	9708, PSDTX861M3
S-175	SOUTH LUBE TANK (T-1)	9708, PSDTX861M3
S-178	TANK 305A	9708, PSDTX861M3
S-179	LATEX TANK 1	9708, PSDTX861M3
S-180	LATEZ TANK 2	9708, PSDTX861M3
S-184	TANK 940T1	9708, PSDTX861M3
S-189	TANK 8501	106.476/09/04/2000
S-190	TANK 8502	106.476/09/04/2000
S-191	TANK 8503	106.476/09/04/2000
S-195	TANK T101	9708, PSDTX861M3
S-196	TANK T102	9708, PSDTX861M3
S-197	TANK T109	9708, 106.472/09/04/2000, PSDTX861M3
S-199	TANK T115	9708, PSDTX861M3
S-201	TANK 30M1	106.476/09/04/2000
S-205	TANK 901	9708, PSDTX861M3
S-206	TANK 902	9708, PSDTX861M3
S-207	TANK 903	9708, PSDTX861M3

New Source Review Authorization References by Emissions Unit

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Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-208	TANK 304	106.476/09/04/2000
S-227	910TK5M1	9708, PSDTX861M3
S-228	910TK5M2	9708, PSDTX861M3
S-233	TANK 940-T2	9708, PSDTX861M3
S-234	TANK 200M5	9708, PSDTX861M3
SUBSTN 32	EAST OF SUBSTATION 32	9708, PSDTX861M3
TK-2021	REMEDICATION TANK	106.533/07/04/2004
TK-2022	REMEDICATION TANK	106.533/07/04/2004
V-13	SODA ASH SILO VENT	9708, PSDTX861M3
V-14	WATER TREATER LIME SILO VENT	9708, PSDTX861M3
V-16	NO. 2 SULFUR PLANT INCINERATOR VENT (INCIN ONLY)	9708, PSDTX861M3
V-16	SRU NO. 2 INCINERATOR	9708, PSDTX861M3
V-17	FCC CATALYST SILO VENT	9708, PSDTX861M3
V-18	NO. 1 REFORMER VENT	9708, PSDTX861M3
V-20	FCC STACK VENT	9708, PSDTX861M3
V-21	NO. 2 REFORMER VENT	9708, PSDTX861M3
V-29	SULFURIC ACID PLANT STACK	9708, PSDTX861M3
V-30	FCCU SPENT CATALYST BOXES	9708, PSDTX861M3
V-5	SRU NO. 1 INCINERATOR	9708, GHGPSDTX20, PSDTX861M3
VT-10	V-116 MEA SWEET AMINE PUMP TANK VENT	9708, PSDTX861M3
VT-11	D05.1 MEA SWEET GLYCOL SURGE TANK VENT	9708, PSDTX861M3

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
VT-12	V-112 GP HEX MIR NEGP MEROX CAT ADD POT VENT	9708, PSDTX861M3
VT-13	GP HEXANE MEROX DISULIFIED SEPARATOR SPENT AIR VEN	9708, PSDTX861M3
VT-14	V-100 NC4 TREATER N-BUTANE SAND TANK VENT	9708, PSDTX861M3
VT-15	ISO-OCTENE ALCOHOL STRIPPER OH ACCUMULATOR VENT	9708, PSDTX861M3
VT-17	V-104 AP SPENT ACID FLASH TANK VENT	9708, PSDTX861M3
VT-18	V-107 AP 66% ACID DRYING TOWER VENT	9708, PSDTX861M3
VT-19	V-112 AP 98% ABSORBING TOWER VENT	9708, PSDTX861M3
VT-1	DEGAS DRUM VENT - #1 AND #2 SOUR WATER STRIPPERS	9708, PSDTX861M3
VT-20	F-101 AP BRINKS FILTER VENT	9708, PSDTX861M3
VT-21	NO 1 SWU STRIPPED SOUR WATER TANK VENT	9708, PSDTX861M3
VT-22	NO 2 SWU DEGAS DRUM VAPOR KO POT VENT	9708, PSDTX861M3
VT-23	#1 VACUUM UNTI OFF GAS ACCUMULATOR (210-V103)	9708, PSDTX861M3
VT-24	PDA BLOWDOWN DRUM/LCO WASH DRUM (V113)	9708, PSDTX861M3
VT-25	PDA BLOWDOWN DRUM/LCO WASH DRUM (V114)	9708, PSDTX861M3
VT-26	PDA LOW PRESSURE SUCTION DRUM (V111)	9708, PSDTX861M3
VT-27	ALKY DEGAS DRUM (V485)	9708, PSDTX861M3
VT-28	#1 HYDROTREATER DESULFURIZATION REFLUX DRUM (V102)	9708, PSDTX861M3
VT-29	#1 HYDROTREATER COMPRSSR KO POT BTMS TO FLR (V203)	9708, PSDTX861M3
VT-2	BOOSTER COMPRESSOR - UNIFINER	9708, PSDTX861M3
VT-30	#2 REF. K-1201 REC. COMP. SOUR OIL POTS (V1202A&B)	9708, PSDTX861M3
VT-31	DHDSU HIGH PRESSURE COLD SEPARATOR (V3204)	9708, PSDTX861M3

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
VT-32	DHDSU STRIPPER ACCUMULATOR (V3206)	9708, PSDTX861M3
VT-33	DHDSU REFLUX ACCUMULATOR (V106)	9708, PSDTX861M3
VT-34	HCU FEED DRUM (1206)	9708, PSDTX861M3
VT-35	HCU WASH WATER DRUM (V1207)	9708, PSDTX861M3
VT-36	HCU DEBUTANIZER REFLUX DRUM TO FLARE (V1220)	9708, PSDTX861M3
VT-37	RLE REFLUX ACCUMULATOR #2 DEC4 (V119)	9708, PSDTX861M3
VT-38	GDU CHYDRO COLUMN R101	9708, PSDTX861M3
VT-39	LOW TEMP GAS PLANT GLYCOL STILL OVHD ACC. (D08.19)	9708, PSDTX861M3
VT-3	ALKY DEGAS DRUM VENT	9708, PSDTX861M3
VT-40	PENEX STABILIZER RECEIVER (V452)	9708, PSDTX861M3
VT-41	#1 SOUR WATER UNIT KNOCK OUT POT (V109)	9708, PSDTX861M3
VT-4	P/P TREATING: MEA SURGE TANK VENT	9708, PSDTX861M3
VT-5	SOUR OIL POTS - #1 CCR	9708, PSDTX861M3
VT-6	V-20001 NO. 4 NAPTHA HT WATER INJECTION TANKS VENT	9708, PSDTX861M3
VT-7	420-V4 FCC INTERMITTENT BLOWDOWN DRUM VNT	9708, PSDTX861M3
VT-8	FCCU SOUR OIL POT VENT (OFF WGC)	9708, PSDTX861M3
VT-9	HCU COMPRESSOR DRAIN POT VENT	9708, PSDTX861M3
WTFFUG	REMEDIATION FUGITIVES	106.533/07/04/2004
WW10	OILY THICKNER (TANK T113)	9708, PSDTX861M3
WW12	API SEPARATOR (TANK T105)	9708, PSDTX861M3
WW13	API SEPARATOR (TANK T106)	9708, PSDTX861M3

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
WW14	DGF TANK	9708, PSDTX861M3
WW1	PH ADJUSTMENT (TANK T104)	9708, PSDTX861M3
WW2	RECOVERED OIL TANK 1	9708, PSDTX861M3
WW3	RECOVERED OIL TANK 2	9708, PSDTX861M3
WW4	CT BLOWDOWN (TANK T103B)	9708, PSDTX861M3
WW5	DGF FROTH (TANK 112)	9708, PSDTX861M3
WW6	TREATED H2O HOLDING (TANK 113)	9708, PSDTX861M3
WW7	SPENT ACID TANK	9708, PSDTX861M3
WW8	SPENT CAUSTIC TANK	9708, PSDTX861M3
WW9	CENTRIFUGE FEED (TANK T213)	9708, PSDTX861M3

Appendix A

Acronym List 119

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
COMS	continuous opacity monitoring system
CVS	closed vent system
D/FW	Dallas/Fort Worth (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MACT	Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr	Million British thermal units per hour
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NESHAP	National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO _x	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PEMS	predictive emissions monitoring system
PM	particulate matter
ppmv	parts per million by volume
PRO	process unit
PSD	prevention of significant deterioration
psia	pounds per square inch absolute
SIP	state implementation plan
SO ₂	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

Appendix B

Major NSR Summary Table 121

Major NSR Summary Table

Permit Number: GHGPSDTX20						Issuance Date: 04/25/2017			
FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1, 2, 3}	BACT Requirements	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
				TPY ²			Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
B-22	B-22	No. 22 Boiler	CO ₂	133,536.67 ⁹	134,077 ⁹	<ul style="list-style-type: none">0.11 lbs CO₂/scf Fuel on a 365-day rolling basisSee permit condition III.A.2	III.A.2, III.A.3, IV.A.1, V.A, V.BV.C, V.D, V.E, V.G, V.H, V.I	III.A.2, III.A.3, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, IV.A.8, V.A, V.E, V.H	IV.A.4, V.B, V.C, V.F, VI
			CH ₄	6.52					
			N ₂ O	1.30					
H-2	H-2	No. 1 Vacuum Heater	CO ₂	37,571.78	37,754	<ul style="list-style-type: none">0.11 lbs CO₂/scf Fuel on a 365-day rolling basisSee permit condition III.B.2	III.B.2, III.B.3, IV.A.1, V.A, V.B, V.C, V.D, V.E, V.G, V.H, V.J	III.B.2, III.B.3, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, V.A, V.E, V.H	IV.A.4, V.B, V.C, V.F, VI
			CH ₄	2.18					
			N ₂ O	0.44					
H-64	H-64	No. 4 Hydrotreater Charge Heater	CO ₂	16,631.04	16,711	<ul style="list-style-type: none">0.11 lbs CO₂/scf Fuel on a 365-day rolling basisSee permit condition III.B.2	III.B.2, III.B.3, IV.A.1, V.A, V.B, V.C, V.D, V.E, V.G, V.H, V.J	III.B.2, III.B.3, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, V.A, V.E, V.H	IV.A.4, V.B, V.C, V.F, VI
			CH ₄	0.96					
			N ₂ O	0.19					
V-5	V-5	No. 1 SRU equipped with a Claus	CO ₂	28,021.28	28,030	<ul style="list-style-type: none">Good combustion and operating	III.C, IV.A.1, V.A, V.B, V.C, V.D, V.E, V.G, V.H, V.J	III.C, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7, V.A, V.E, V.H	IV.A.4, V.B, V.C, V.F, VI
			CH ₄	0.12					

		Burner and Tail Gas Incinerator ⁶	N ₂ O	0.02		practices; <ul style="list-style-type: none"> • Energy Efficient Design; • 3-Stage Claus Burner System and SCOT tail gas treatment system; • See permit condition III.C 			
F-ICRUDE F-2CRUDE F-RLE F-4NHT F-HCU F-DHDSU F-GHDS F-SRUI F-SRU2 F-WWTP F-ETNKFRM F-NTNKFRM F-WTNKFRM	FUGITIVES	Process Fugitives ⁸	CO ₂	No Numerical Limit Established ⁴	7 4.6	Incorporation of 28 VHP Monitor in g. See permit condition III.E.	III.E, IV.A.1	III.E, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7	IV.A.4, VI
			CH ₄	3.55					
			N ₂ O	No Numerical Limit Established ⁴					
MSS-FLARE	MSS-CONTROL	Portable Combustion Control Device	CO ₂	11	12	Good combustion and operating practices. See permit condition III.D.	III.D, IV.A.1	III.D, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7	IV.A.4, VI
			CH ₄	0.03					
			N ₂ O	No Numerical Limit Established ⁴					
MSS Fugitives	MSSFUG	Process Fugitives MSS ⁸	CO ₂	No Numerical Limit Established ⁴	0.63	Incorporation of 28 VHP Monitoring. See permit condition III.E.	III.E, IV.A.1	III.E, IV.A.1, IV.A.2, IV.A.3, IV.A.4, IV.A.7	IV.A.4, VI
			CH ₄	0.03					

			N ₂ O	No Numerical Limit Established ⁴					
Totals^{5, 7}			CO ₂	215,771.77⁹	216,660⁹				
			CH ₄	13.39					
			N ₂ O	1.95					

1. Compliance with the annual emission limits (tons per year) is based on a 12-month rolling average.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations including MSS activities.
3. Global Warming Potentials (GWP): CH₄=21, N₂O =310
4. All values indicated as "No Numerical Limit Established" are less than 0.01 tpy with appropriate rounding. The emission limit will be a design/work practice standard as specified in the permit.
5. The total emissions for CH₄, N₂O, CO₂ and CO₂e do not include the PTE for process fugitive emissions only from increased fugitive components.
6. Emissions include greenhouse gas emissions from fuel gas and acid gas combustion in SRU Claus burners and the tail gas incinerator.
7. Totals represent the amount of new or modified emission unit greenhouse gas emissions.
8. Process fugitive emissions are estimated for additional fugitive components only to be added by this project.

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
MAINTENANCE EMISSIONS CAPS: (7)		VOC	4517.54	33.06	4, 5, 6, 64, 66, 67, 68, 69, 70, 72, 73, 75	4, 5, 6, 54, 55, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77	4, 5, 6
		NO _x	116.53	14.83			
		CO	677.03	18.89			
		SO ₂	1768.80	6.13			
		H ₂ S	19.31	0.05			
		HCl	4.00	< 0.01			
		PM	2.02	0.44			
		PM ₁₀	2.02	0.44			
		PM _{2.5}	2.02	0.44			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
B-10	No. 18 Boiler	NO _x	8.73	38.22	4, 6, 46, 47, 48, 56,	4, 6, 47, 48, 54, 55, 56, 61, 74,	4, 6, 48, 61
		CO	28.08	57.67			
		VOC	1.21	5.28			
		SO ₂	5.18	10.15			
		PM	1.67	7.30			
		PM ₁₀	1.67	7.30			
		PM _{2.5}	1.67	7.30			
B-11	No. 19 Boiler	NO _x	8.73	38.22	4, 6, 46, 47, 48, 56	4, 6, 47, 48, 54, 55, 56, 61, 74	4, 6, 48, 61
		CO	15.86	69.47			
		VOC	1.21	5.28			
		SO ₂	5.18	10.15			
		PM	1.67	7.30			
		PM ₁₀	1.67	7.30			
		PM _{2.5}	1.67	7.30			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
B-12	600# Boiler	NO _x	49.28	155.43	4, 6, 46, 48, 56	4, 6, 54, 55, 56, 48, 74	4, 6, 48
		CO	17.47	61.21			
		VOC	1.33	4.66			
		SO ₂	5.70	8.94			
		PM	1.84	6.43			
		PM ₁₀	1.84	6.43			
		PM _{2.5}	1.84	6.43			
B-22	Boiler B-22A & B-22B	NO _x	3.38	9.86	4, 6, 46, 49, 56	4, 6, 49, 54, 55, 56, 74	4, 6
		CO	15.95	34.93			
		VOC	1.21	5.31			
		SO ₂	5.20	10.21			
		PM	1.68	7.34			
		PM ₁₀	1.68	7.34			
		PM _{2.5}	1.68	7.34			
		NH ₃	0.11	0.46			
B-4	No. 11 Boiler	NO _x	17.01	59.59	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	6.35	18.32			
		VOC	0.48	1.69			
		SO ₂	2.07	3.25			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
		PM	0.67	2.34			
		PM ₁₀	0.67	2.34			
		PM _{2.5}	0.67	2.34			
B-6	No. 13 Boiler	NO _x	15.60	54.66	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 61, 74	4, 6, 45, 61
		CO	5.82	17.59			
		VOC	0.44	1.55			
		SO ₂	1.90	2.98			
		PM	0.61	2.14			
		PM ₁₀	0.61	2.14			
		PM _{2.5}	0.61	2.14			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
B-8	No. 15 Boiler	NO _x	9.40	32.94	4, 6, 47, 46, 56	4, 6, 47, 54, 55, 56, 61, 74	4, 6, 48, 61
		CO	11.10	38.92			
		VOC	0.84	2.96			
		SO ₂	3.62	5.69			
		PM	1.17	4.09			
		PM ₁₀	1.17	4.09			
		PM _{2.5}	1.17	4.09			
B-9	No. 16 Boiler	NO _x	13.16	32.94	4, 6, 46, 48, 56	4, 6, 48, 54, 55, 56, 61, 74	4, 6, 48, 61
		CO	11.11	38.92			
		VOC	0.84	2.96			
		SO ₂	3.62	5.69			
		PM	1.17	4.09			
		PM ₁₀	1.17	4.09			
		PM _{2.5}	1.17	4.09			
H-1	No. 1 Crude Charge Heater	NO _x	18.59	46.46	4, 6, 46, 47, 48, 56	4, 6, 47, 48, 54, 55, 56, 74	4, 6, 48
		CO	21.96	82.34			
		VOC	1.67	6.26			
		SO ₂	7.16	12.03			
		PM	2.31	8.66			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-11	No. 2 Crude Charge Heater (Anderson)	PM ₁₀	2.31	8.66			
		PM _{2.5}	2.31	8.66			
		NO _x	3.87	14.23	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	6.54	24.01			
		VOC	0.50	1.83			
		SO ₂	2.13	3.51			
		PM	0.69	2.52			
		PM ₁₀	0.69	2.52			
		PM _{2.5}	0.69	2.52			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-13	Gas Oil Frac. Heater	NO _x	4.00	17.52	4, 6, 46, 56	4, 6, 54, 55, 56, 74	4, 6
		CO	2.84	12.42			
		VOC	0.22	0.94			
		SO ₂	0.93	1.81			
		PM	0.30	1.31			
		PM ₁₀	0.30	1.31			
		PM _{2.5}	0.30	1.31			
H-14	Unifiner Charge Heater	NO _x	2.60	11.38	4, 6, 46	4, 6, 54, 55, 74	4, 6
		CO	1.88	8.23			
		VOC	0.14	0.63			
		SO ₂	0.61	1.20			
		PM	0.20	0.87			
		PM ₁₀	0.20	0.87			
		PM _{2.5}	0.20	0.87			
H-15	No. 1 Naphtha Hydrotreater Charge Heater	NO _x	1.63	7.12	4, 6, 46	4, 6, 54, 55, 74	4, 6
		CO	2.56	11.22			
		VOC	0.19	0.85			
		SO ₂	0.84	1.64			
		PM	0.27	1.18			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-18	No. 1 Reformer Charge Heater	PM ₁₀	0.27	1.18	4, 6, 46, 47, 48, 56	4, 6, 47, 48, 54, 55, 56, 74	4, 6, 48
		PM _{2.5}	0.27	1.18			
		NO _x	17.96	52.81			
		CO	25.45	33.37			
		VOC	1.94	6.47			
		SO ₂	8.31	12.43			
		PM	2.68	8.94			
		PM ₁₀	2.68	8.94			
		PM _{2.5}	2.68	8.94			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-2	No. 1 Vacuum Charge Heater	NO _x	3.08	11.52	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	6.24	11.66			
		VOC	0.47	1.77			
		SO ₂	2.04	3.41			
		PM	0.66	2.45			
		PM ₁₀	0.66	2.45			
		PM _{2.5}	0.66	2.45			
H-26	No. 2 Vacuum Charge Heater	NO _x	4.06	15.76	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	6.55	25.39			
		VOC	0.50	1.93			
		SO ₂	2.14	3.71			
		PM	0.69	2.67			
		PM ₁₀	0.69	2.67			
		PM _{2.5}	0.69	2.67			
H-27	P/P Mole Sieve Regeneration Heater	NO _x	1.35	0.76	4, 6, 46	4, 6, 54, 55, 56, 74	4, 6
		CO	0.68	0.38			
		VOC	0.05	0.03			
		SO ₂	0.22	0.06			
		PM	0.07	0.04			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-28	Active Butane Oxygenate Heater	PM ₁₀	0.07	0.04	4, 6, 46	4, 6, 54, 55, 74	4, 6
		PM _{2.5}	0.07	0.04			
		NO _x	1.16	5.07			
		CO	0.84	3.67			
		VOC	0.06	0.28			
		SO ₂	0.27	0.54			
		PM	0.09	0.39			
		PM ₁₀	0.09	0.39			
		PM _{2.5}	0.09	0.39			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-34	No. 1 Reformer Stabilizer Reboiler	NO _x	3.08	13.48	4, 6, 46	4, 6, 54, 55, 74	4, 6
		CO	1.82	7.96			
		VOC	0.14	0.61			
		SO ₂	0.59	1.16			
		PM	0.19	0.84			
		PM ₁₀	0.19	0.84			
		PM _{2.5}	0.19	0.84			
H-36	No. 2 Naphtha Hydrotreater Charge Heater	NO _x	1.78	7.80	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	4.07	8.92			
		VOC	0.31	1.36			
		SO ₂	1.33	2.61			
		PM	0.43	1.88			
		PM ₁₀	0.43	1.88			
		PM _{2.5}	0.43	1.88			
H-37	No. 2 Naphtha Hydrotreater Desulfurizer Reboiler	NO _x	6.40	15.97	4, 6, 46, 56	4, 6, 54, 55, 56, 74	4, 6
		CO	4.54	11.32			
		VOC	0.34	0.86			
		SO ₂	1.48	1.65			
		PM	0.48	1.19			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-38	#2 Reformer Charge Heater	PM ₁₀	0.48	1.19	4, 6, 46, 47, 48, 56, 60	4, 6, 47, 48, 54, 55, 56, 60, 74	4, 6, 48, 60
		PM _{2.5}	0.48	1.19			
		NO _x	13.58	42.07			
		CO	24.67	66.53			
		VOC	1.88	5.82			
		SO ₂	8.05	11.17			
		PM	2.59	8.04			
		PM ₁₀	2.59	8.04			
		PM _{2.5}	2.59	8.04			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-39	#2 Reformer Stabilizer Reboiler Heater	NO _x	3.47	12.78	4, 6, 46	4, 6, 54, 55, 74	4, 6
		CO	2.05	7.55			
		VOC	0.16	0.57			
		SO ₂	0.67	1.10			
		PM	0.22	0.79			
		PM ₁₀	0.22	0.79			
		PM _{2.5}	0.22	0.79			
H-40	No. 1 PDA Asphalt Heater (Asphalt-South)	NO _x	10.21	37.17	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	5.66	10.29			
		VOC	0.43	1.57			
		SO ₂	1.85	3.01			
		PM	0.59	2.16			
		PM ₁₀	0.59	2.16			
		PM _{2.5}	0.59	2.16			
H-41	No. 2 Crude Charge-Born Heater	NO _x	16.40	71.83	4, 6, 46, 47, 48, 56	4, 6, 47, 48, 54, 55, 56, 74	4, 6, 48
		CO	21.93	36.49			
		VOC	1.67	7.31			
		SO ₂	7.16	14.03			
		PM	2.31	10.10			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-42	Hydrocracker Recycle Heater	PM ₁₀	2.31	10.10			
		PM _{2.5}	2.31	10.10			
		NO _x	4.06	15.28	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	7.02	13.21			
		VOC	0.53	2.01			
		SO ₂	2.29	3.86			
		PM	0.74	2.78			
		PM ₁₀	0.74	2.78			
		PM _{2.5}	0.74	2.78			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-43	HCU Debutanizer Reboiler Heater	NO _x	3.31	14.49	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	6.17	13.52			
		VOC	0.47	2.06			
		SO ₂	2.01	3.95			
		PM	0.65	2.84			
		PM ₁₀	0.65	2.84			
		PM _{2.5}	0.65	2.84			
H-45	No. 1 Naphtha Hydrotreater Desulfurizer Reboiler	NO _x	2.66	11.67	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	4.97	10.88			
		VOC	0.38	1.66			
		SO ₂	1.62	3.18			
		PM	0.52	2.29			
		PM ₁₀	0.52	2.29			
		PM _{2.5}	0.52	2.29			
H-46	No. 1 Reformer No. 1 Interheater	NO _x	9.53	32.77	4, 6, 46, 47, 48, 56	4, 6, 47, 48, 54, 55, 56, 74	4, 6
		CO	14.68	50.50			
		VOC	1.12	3.84			
		SO ₂	4.79	7.38			
		PM	1.54	5.31			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-48	Diesel Hydrotreater Charge Heater	PM ₁₀	1.54	5.31	4, 6, 45, 46, 47, 56, 60	4, 6, 45, 54, 55, 56, 60, 74	4, 6, 45, 60
		PM _{2.5}	1.54	5.31			
		NO _x	3.42	14.98			
		CO	6.73	14.74			
		VOC	0.51	2.24			
		SO ₂	2.20	4.31			
		PM	0.71	3.10			
		PM ₁₀	0.71	3.10			
		PM _{2.5}	0.71	3.10			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-6	Dago Heater	NO _x	3.39	14.87	4, 6, 46	4, 6, 54, 55, 74	4, 6
		CO	2.01	8.78			
		VOC	0.15	0.67			
		SO ₂	0.65	1.28			
		PM	0.21	0.92			
		PM ₁₀	0.21	0.92			
		PM _{2.5}	0.21	0.92			
H-64	No. 4 Hydrotreater Charge Heater	NO _x	1.27	5.54	4, 6, 46	4, 6, 54, 55, 74	4, 6
		CO	2.36	5.17			
		VOC	0.18	0.79			
		SO ₂	0.77	1.51			
		PM	0.25	1.09			
		PM ₁₀	0.25	1.09			
		PM _{2.5}	0.25	1.09			
H-8	HCU Charge Heater (Petrochem North)	NO _x	4.69	20.52	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	6.27	27.45			
		VOC	0.48	2.09			
		SO ₂	2.04	4.01			
		PM	0.66	2.88			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-80	FCC Gas HDS Charge Heater	PM ₁₀	0.66	2.88	4, 6, 45, 46, 56, 59	4, 6, 45, 54, 55, 56, 59, 74	4, 6, 45, 59
		PM _{2.5}	0.66	2.88			
		NO _x	3.05	13.36			
		CO	6.98	30.55			
		VOC	0.53	2.32			
		SO ₂	2.28	4.46			
		PM	0.73	3.21			
		PM ₁₀	0.73	3.21			
		PM _{2.5}	0.73	3.21			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
H-88	Acid Plant Startup Heater (Intermittent)	NO _x	0.79	3.46	4, 6, 46	4, 6, 54, 55, 74	4, 6
		CO	0.40	1.75			
		VOC	0.03	0.13			
		SO ₂	0.13	0.26			
		PM	0.04	0.18			
		PM ₁₀	0.04	0.18			
		PM _{2.5}	0.04	0.18			
H-9	No. 2 Crude Heater (Petrochem South)	NO _x	3.02	13.25	4, 6, 45, 46, 56	4, 6, 45, 54, 55, 56, 74	4, 6, 45
		CO	3.40	7.45			
		VOC	0.26	1.13			
		SO ₂	1.11	2.18			
		PM	0.36	1.57			
		PM ₁₀	0.36	1.57			
		PM _{2.5}	0.36	1.57			
F-20	No. 1 Refinery Cooling Tower	VOC (5) (6)	3.52	15.40	6, 40, 41	6, 40, 41, 54, 55, 74	6
		Benzene	0.21	0.92			
		PM	3.06	13.41			
		PM ₁₀	0.51	2.24			
		PM _{2.5}	0.01	0.02			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
F-21	Gasoline Plant Cooling Tower	VOC (5) (6)	2.90	12.69	6, 40, 41	6, 40, 41, 54, 55, 74	6
		Benzene	0.17	0.76			
		PM	2.54	11.13			
		PM ₁₀	0.42	1.83			
		PM _{2.5}	< 0.01	0.02			
F-47	No. 2 Refinery Cooling Tower	VOC (5) (6)	2.28	9.97	6, 40, 41	6, 40, 41, 54, 55, 74	6
		Benzene	0.14	0.59			
		PM	2.16	9.48			
		PM ₁₀	0.30	1.29			
		PM _{2.5}	< 0.01	0.01			
E-7	Unifiner Engine (Clark)	NO _x	4.56	19.98	6	6, 54, 55, 74	6
		CO	0.08	0.36			
		VOC	0.17	0.76			
		SO ₂	0.01	0.01			
		PM	0.07	0.29			
		PM ₁₀	0.07	0.29			
		PM _{2.5}	0.07	0.29			
FL-9	Brine Degas Drum	NO _x	8.21	0.99	46	54, 55, 74	
		CO	16.38	1.98			

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
		VOC	30.15	5.52			
FL-6	Wastewater Flare	NO _x	2.09	4.59	4, 6, 21, 22, 46	4, 6, 21, 22, 54, 55, 74	4, 6
		CO	10.66	23.38			
		VOC	5.00	10.94			
		SO ₂	2.03	1.33			
		H ₂ S	0.02	0.01			
		NH ₃	< 0.01	< 0.01			
Combined Compliance Short Term and Annual Caps for Flares FL-1, FL-3, FL-4, and FL-8 (8)		NO _x	40.46	34.31	6, 21, 22, 46	6, 21, 22, 54, 55, 74	6
		CO	210.06	190.66			
		VOC	352.09	179.46			
		SO ₂	19.05	15.69			
		H ₂ S	6.07	0.27			
FGR-SUMP	FGR Oily Water Sump	VOC	0.03	0.07	4, 6	4, 6, 54, 55, 74	4, 6
FL-7	Loading Rack Vapor Combustor	NO _x	6.39	8.83	6, 13, 26, 45, 46, 59	6, 13, 17, 26, 45, 54, 55, 59, 74	6, 13, 26, 45, 59
		CO	15.73	21.89			
		VOC (6)	19.23	9.71			
		Benzene	6.87	1.38			
		SO ₂	0.09	0.02			
		PM	0.26	0.17			

Major NSR Summary Table

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
		PM ₁₀	0.26	0.17			
		PM _{2.5}	0.26	0.17			
L-2	Asphalt Truck Loading Rack	VOC	7.49	14.13	4, 15	4, 17, 54, 55, 74	4, 14
L-11	Railcar/ Truck Loading Rack	VOC (6)	10.48	10.20	5, 6, 12, 15, 59	5, 6, 12, 17, 54, 55, 59, 74	5, 6, 14, 59
		Benzene	0.32	0.32			
L-7	Asphalt Railcar Rack	VOC	6.97	12.82	4, 15	4, 17, 54, 55, 74	4, 14
V-29	Sulfuric Acid Plant Vent	SO ₂	1.68	7.36	4, 45, 47, 48	4, 45, 47, 48, 54, 55, 65, 74	4, 45, 48
		H ₂ SO ₄	0.07	0.32			
V-20	F.C.C.U. (Fluidized Catalytic Cracking Unit)	NO _x	220.11	163.36	4, 6, 42, 43, 45, 47, 48, 58	4, 6, 42, 45, 47, 48, 54, 55, 58, 74	4, 6, 45, 48, 58
		CO	37.80	93.07			
		VOC	10.55	38.19			
		SO ₂	459.69	138.69			
		PM	80.00	294.02			
		PM ₁₀	80.00	294.02			
		PM _{2.5}	80.00	294.02			
		NH ₃	40.74	146.00			
		H ₂ SO ₄	12.40	41.98			
		Hydrogen Cyanide	25.20	108.54			

Major NSR Summary Table

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
V-18	No. 1 Reformer Cat Regenerator Vent	CO	3.27	14.31	4, 6, 45, 50	4, 6, 45, 50, 54, 55, 74	4, 6, 45, 50
		VOC	0.61	2.68			
		HCl	0.15	0.67			
		Cl ₂	0.04	0.19			
V-21	No. 2 Reformer Cat Regenerator Vent	CO	70.00	3.36	4, 6, 45, 50	4, 6, 45, 50, 54, 55, 74	4, 6, 45, 50
		VOC	0.03	< 0.01			
		HCl	1.06	0.05			
		Cl ₂	0.31	0.01			
V-13	Soda Ash Silo	PM	0.09	0.02	53	53, 54, 55, 74	
		PM ₁₀	0.09	0.02			
		PM _{2.5}	0.09	0.02			
V-14	Lime Silo Vent	PM	0.09	0.02	53	53, 54, 55, 74	
		PM ₁₀	0.09	0.02			
		PM _{2.5}	0.09	0.02			
V-17	FCC Catalyst Silo Vent	PM	0.01	0.01		54, 55, 74	
		PM ₁₀	0.01	0.01			
		PM _{2.5}	0.01	0.01			

Major NSR Summary Table

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
V-5	SRU No. 1 Incinerator	NO _x	0.40	1.75	4, 6, 33, 45, 47, 48	4, 6, 33, 35, 45, 47, 48, 54, 55, 74	4, 6, 45, 48
		CO	1.87	8.20			
		VOC	0.19	0.82			
		SO ₂	10.69	46.84			
		H ₂ S	0.11	0.50			
		PM	0.38	1.67			
		PM ₁₀	0.38	1.67			
		PM _{2.5}	0.38	1.67			
V-16	SRU No. 2 Incinerator	NO _x	0.56	2.45	4, 6, 33, 45, 47, 48	4, 6, 33, 35, 45, 47, 48, 54, 55, 74	4, 6, 45, 48
		CO	13.66	59.82			
		VOC	0.20	0.87			
		SO ₂	10.96	48.01			
		H ₂ S	0.12	0.51			
		PM	0.84	3.68			
		PM ₁₀	0.84	3.68			
		PM _{2.5}	0.84	3.68			
V-30	FCCU Spent Catalyst Roll Off Boxes	PM	< 0.01	< 0.01		54, 55, 74	
		PM ₁₀	< 0.01	< 0.01			
		PM _{2.5}	< 0.01	< 0.01			

Major NSR Summary Table

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			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
S-044	Tank 144	Caustic	0.01	0.01		54, 55, 74	
S-142	Tank 232	Caustic	0.01	0.01		54, 55, 74	
CARBON CAN	Carbon Canister System Fugitives (CAS1 – CAS9)	VOC	3.24	5.68	4, 5, 6, 10	4, 5, 6, 10, 54, 55, 74	4, 5, 6
F-1CRUDE, F-1REF_HT, F-2CRUDE, F-2REF_HT, F-4HT, F-HCU, F-ALKY_PDA, F-ALKY, F-ASPHALT, F-CAVERN, F-FGR, F-DESALT, F-DHDSU, F-ETNKFRM, F-FCCU, F-GASBLD, F-GASPLT, F-GHDS, F-HDS_GOF, F-LPG, F-IOCTENE, F-NBULKLD, F-NTNKFRM, F-ORU, F-PENEX, F-PUMPSTA, F-RAILLOAD, F-RLE, F-SBULKLD, F-SRU1, F-SRU2, F-SWS, F-UNIFINER, F-WTNKFRM, F-MSAT, F-WWTP, F-AMINE2, F-MSATLOAD, F-SUMP	Cap for Fugitives	VOC (5) (6)	151.27	662.17	4, 5, 6, 30, 31, 32	4, 5, 6, 30, 31, 32, 54, 55, 74	4, 5, 6, 30, 31
		Benzene (5)	0.99	4.31			
		H ₂ S (5)	0.24	1.02			
		NH ₃ (5)	0.03	0.14			

Major NSR Summary Table

Permit Number: 9708 and PSDTX861M3			Issuance Date: 04/06/2018				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
S-063, S-064, S-168, S-173, S-174, S-175, S-179, S-180, S-184, S-195, S-196, S-197, S-199, S-227, S-228, S-233, S-234	Cap for Storage Tanks	VOC (6)	20.01	11.87	4, 6, 8, 69, 70	4, 6, 8, 54, 55, 63, 69, 70, 74	4, 6
		Benzene	0.01	0.02			
OX-001	Wastewater Sludge Centrifuge Catalytic Oxidizer	NO _x	< 0.01	< 0.01	4, 5, 6, 25	4, 5, 6, 25, 54, 55, 74	4, 5, 6
		CO	0.34	1.48			
		VOC	0.03	0.11			
		SO ₂	1.25	5.49			
		PM	< 0.01	< 0.01			
		PM ₁₀	< 0.01	< 0.01			
		PM _{2.5}	< 0.01	< 0.01			
ADDITIVETK	Biodiesel Additive Tank	VOC	5.03	1.68	8, 69, 70	8, 54, 55, 69, 70, 74	
F-85	Painting	VOC	4.25	1.26		54, 55, 65, 74, 77	
F-BRINE	Brine Pond Fugitives	VOC (5)	23.74	2.80	4, 5, 6	4, 5, 6, 54, 55, 74	4, 5, 6
MSS_ABRBLS	Abrasive Blasting Operation	PM	0.54	0.37		54, 55, 65, 74, 79	
		PM ₁₀	0.07	0.05			
		PM _{2.5}	< 0.01	< 0.01			

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3)

VOC	- volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO _x	- total oxides of nitrogen
SO ₂	- sulfur dioxide
PM	- total particulate matter, suspended in the atmosphere, including PM ₁₀ and PM _{2.5} , as represented
PM ₁₀	- total particulate matter equal to or less than 10 microns in diameter, including PM _{2.5} , as represented
PM _{2.5}	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
H ₂ S	- hydrogen sulfide
H ₂ SO ₄	- sulfuric acid
HCl	- hydrogen chloride
NH ₃	- ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) VOC rate includes Benzene emissions.
- (7) See Attachment D for a list of sources included in the Maintenance Emissions Cap.
- (8) The caps for flares include emissions associated with the flare gas recovery maintenance.



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Diamond Shamrock Refining Company, L.P.
Authorizing the Construction and Operation of
Valero McKee Refinery
Located at **Sunray, Moore County, Texas**
Latitude 35° 57' 6" *Longitude* -101° 52' 24"

Permit: GHGPSDTX20

Issuance Date: April 25, 2017

A handwritten signature in black ink, appearing to read "R. D. A. Hyl".

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]¹
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

¹ Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Attachment A
Voluntary Update
Permit No. GHGPSDTX20

The following permit requirements are being changed in response to a request by letter received from Tricord Consulting, LLC on behalf of Diamond Shamrock Refining Company, L.P. on January 4, 2016. These requirements replace those in permit PSD-TX-861-GHG dated September 13, 2016.

II. Annual Emission Limits

Annual emissions, in tons per year (TPY) on a 12-month rolling basis, shall not exceed the following:

Table 1. Annual Emission Limits Edits

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1,2,3}	BACT Requirements
				TPY ²		
B-22	B-22	No. 22 Boiler	CO ₂	133,536.67 ⁹	134,077 ⁹	<ul style="list-style-type: none">0.13 lbs CO₂/scf Fuel on a 365-day rolling basisSee permit condition III.A.2
Totals^{5,7}			CO ₂	215,771.77 ⁹	216,660 ⁹	
			CH ₄	13.39		
			N ₂ O	1.95		

1. Compliance with the annual emission limits (tons per year) is based on a 12-month rolling average.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations including MSS activities.
3. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
4. The total emissions for CH₄, N₂O, CO₂ and CO₂e do not include the PTE for process fugitive emissions only from increased fugitive components
5. Totals represent the amount of new or modified emission unit greenhouse gas emissions.
6. Emission updated to be consistent with the records required by 30 Texas Administrative Code §116.164(b).

III. SPECIAL PERMIT CONDITIONS

A. Requirements for Boiler (EPN: B-22)

2. Boiler BACT Requirements:

- a. The BACT limit of 0.13 lbs of CO₂/scf of fuel is based on a 365-day rolling average and will be obtained by using the daily calculation result of the CO₂ emissions and divided by the daily measured fuel consumption. The quotient of the divided result is added to the 365-day rolling average and is rolled daily. As an alternative, the Permittee may install and operate a volumetric stack gas flow monitor and associated data acquisition and handling system in accordance with the CO₂ CEMS system provided in 40 CFR 75.10(a)(3) and (a)(5).

IV. Recordkeeping and Reporting

A. Records

8. Allowable emission rates and special conditions are updated to be consistent with records required by 30 TAC §116.164. If construction, a physical change or change in method of operation results in Prevention of Significant Deterioration (PSD) review for criteria pollutants, records shall be sufficient to demonstrate the amount of emissions of GHGs from the source as a result of construction, a physical change or a change in method of operation does not require authorization under 30 TAC §116.146(a). If there is construction, a physical change or change in the method of operation that will result in a net emissions increase of 75,000 tpy or more CO₂e PSD review is triggered for criteria pollutants, greenhouse gas emissions re subject to PSD review.

Date: April 25, 2017

**PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
FOR GREENHOUSE GAS EMISSIONS
ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21**

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

PSD PERMIT NUMBER: PSD-TX-861-GHG

PERMITTEE: Diamond Shamrock Refining Company, L.P.
6701 FM 119
Sunray, TX 79086


FACILITY NAME: Diamond Shamrock Refining Company, L.P.
Valero McKee Refinery

FACILITY LOCATION: 6701 FM 119
Sunray, TX 79086

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 7470, *et. Seq.*), and the Code of federal Regulations (CFR) Title 40, Section 52.21, and the Federal Implementation Plan at 40 CFR § 52.2305 (effective May 1, 2011 and published at 76 FR 25178), the U.S. Environmental Protection Agency, Region 6 is issuing a *Prevention of Significant Deterioration* (PSD) pennit to Diamond Shamrock Refining Company, L.P. (a Valero Company) for Greenhouse Gas (GHG) emissions. The Pennit applies to the addition and modification to several emissions sources as part of a Crude Expansion Project to increase the overall processing of crude oil at the existing Valero McKee Refinery located in Sunray, Texas.

Valero is authorized to construct the Crude Expansion Project as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD pennit in conjunction with the corresponding Texas Commission on Environmental Quality (TCEQ) construction PSD permit No. PSD-TX-861M3. Failure to comply with any condition or term set forth in this PSD Permit may result in enforcement action pursuant to Section 113 of the Clean Air Act (CAA). This PSD Permit does not relieve Valero of the responsibility to comply with any other applicable provisions of the CAA (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 72 through 75, and 98) or other federal and state requirements (including the state PSD program that remains under approval at 40 CFR § 52.2303).

In accordance with 40 CFR §124.15(b)(3), this PSD Permit becomes effective immediately upon issuance of this final decision.


Wren Stenger, Director
Multimedia Planning and Permitting Division

9/16/13
Date

Diamond Shamrock Refining Company, L.P.(PSD-TX-861-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Permit Conditions

PROJECT DESCRIPTION

The Diamond Shamrock Refining Company, Valero McKee Refinery (Valero) processes crude oil to produce petrochemical products and commercial petroleum products. Crude oil is blended at a separate facility and transferred to Valero by pipeline and trucks. The crude oil is then processed and refined into various petrochemical products and commercial petroleum products such as propane, gasoline, jet fuel, diesel fuel, and asphalt.

The Crude Expansion Project will debottleneck parts of the refinery to allow for additional crude processing. The proposed changes involve the installation and modification of equipment at several existing process units such as the Nos. 1 and 2 Crude Units, the Nos. 1 and 2 Vacuum Units, the Refinery Light Ends (RLE) Unit, the No.4 Naphtha Fractionator, the Dehexanizer Tower (a Naphtha Fractionator), the Hydrocracking Unit (HCU), the Gasoline Desulfurization Unit (GDU), the Turbine Fuel Merox Unit, the Diesel Hydrotreater, the Gas Oil Fractionator (GOF), Sour Water Stripper (SWS), and Amine Treating and Sulfur Recovery Units (SRUs) at the existing Valero McKee Refinery located in Sunray, Moore County, Texas. In addition, a new steam boiler, new storage tanks, new cooling tower pumps and new process piping will be added to accommodate the increased crude processing. The Crude Expansion Project will increase the crude processing from 169,000 barrels per day to 210,000 barrels per day when completed.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

FIN	EPN	Description
B-22	B-22	Boiler No. 22. The boiler has a maximum heat input rate of 225 MMBtu/hr (HHV) firing refinery fuel gas.
H-2	H-2	No. 1 Vacuum Heater. The vacuum heater has a maximum heat input rate of 88.0 MMBtu/hr.
H-64	H-64	No.4 Hydrotreater Charge Heater. The charge heater has a maximum heat input rate of 33.26 MMBtu/hr.
V-5	V-5	SRU No. 1 Incinerator. The incinerator has a maximum stack flow rate of 279,767 scfh at 60 °F

F-1CRUDE; F-2CRUDE; F-RLE; F-4NHT; F-HCU; F-DHDSU/ GASPLT; F-GHDS; F-SRU1; F-SRU2; F-WWTP; F-ETNKFRM; F-NTINKFRM; F-WTNKFRM	FUGITIVES	Process fugitives from No. 1 Crude Unit and Dehexanizer, No. 2 Crude Unit, Refinery Light Ends Unit, No. 4 Naphtha Fractionator, Hydrocracker, Diesel Hydrodesulfurization Unit & Turbine Merox Unit, Gasoline Desulfurization Unit, No. 1 SRU, No. 2 SRU, Wastewater Treatment Plant, East Tank Farm, North Tank Farm, and West Tank Farm
MSS-FLARE	MSS-CONTROL	Portable Flare or Portable Thermal Oxidizer for EFR Tank Degassing Control
MSS Fugitives	MSSFUG	MSS Process Fugitives

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR §52.21(r), this PSD Permit shall become invalid if construction:

1. is not commenced (as defined in 40 CFR §52.21(b)(9)) within 18 months after the approval takes effect; or
2. is discontinued for a period of 18 months or more; or
3. is not completed within a reasonable time.

Pursuant to 40 CFR §52.21 (r), EPA may extend the 18-month period upon a written satisfactory showing that an extension is justified.

B. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region 6 in writing or by electronic mail of the:

1. date construction is commenced, postmarked within 30 days of such date;
2. actual date of initial startup, as defined in 40 CFR §60.2, postmarked within 15 days of such date; and
3. date upon which initial performance tests will commence, in accordance with the provisions of Section V, postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the performance test protocol required pursuant to Condition V.B.

C. FACILITY OPERATION

At all times, including periods of startup, shutdown, and maintenance, Permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA, which may include, but is not limited to, monitoring results, review of operating maintenance procedures and inspection of the facility.

D. MALFUNCTION REPORTING

1. Permittee shall notify EPA by mail within 48 hours following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in GHG emissions above the allowable emission limits stated in Section II and III of this permit.
2. Within 10 days of the restoration of normal operations after any failure described in 1.0.1., Permittee shall provide a written supplement to the initial notification that includes a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section II and III, and the methods utilized to mitigate emissions and restore normal operations.
3. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

E. RIGHT OF ENTRY

EPA authorized representatives, upon the presentation of credentials, shall be permitted:

1. to enter the premises where the facility is located or where any records are required to be kept under the terms and conditions of this PSD Permit;
2. during normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;
3. to inspect any equipment, operation, or method subject to requirements in this PSD Permit; and,
4. to sample materials and emissions from the source(s).

F. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the facilities to be constructed, this PSD Permit shall be binding on all subsequent owners and operators. Permittee shall notify the

succeeding owner and operator of the existence of the PSD Permit and its conditions by letter; a copy of the letter shall be forwarded to EPA Region 6 within thirty days of the letter signature.

G. SEVERABILITY

The provisions of this PSD Permit are severable, and, if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit shall not be affected.

H. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct this project in compliance with this PSD Permit, the application on which this permit is based, the TCEQ construction NSR permit PSD-TX-861M3 (when issued for the Crude Expansion Project) and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state and local environmental laws and regulations, including the Clean Air Act.

I. ACRONYMS AND ABBREVIATIONS

BACT	Best Available Control Technology
CAA	Clean Air Act
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
EPN	Emission Point Number
FIN	Facility Identification Number
FR	Federal Register
GCV	Gross Calorific Value
GHG	Greenhouse Gas
GWP	Global Warming Potential
HCU	Hydrocracking Unit
HHV	High Heating Value
hr	Hour
lb	Pound
LDAR	Leak Detection and Repair Million
MMBtu	British Thermal Units Maintenance,
MSS	Start-up and Shutdown New Source
NSR	Review
N ₂ O	Nitrous Oxides
NSPS	New Source Performance Standards
PSD	Prevention of Significant Deterioration
RLE	Refinery Light Ends
SCFH	Standard Cubic Feet per Hour
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPY	Tons per Year
USC	United States Code

II. Annual Emission Limits

Annual emissions, in tons per year (TPY) on a 12-month rolling basis, shall not exceed the following:

Table 1. Annual Emission Limits

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1,2,3}	BACT Requirements
				TPY ²		
B-22	B-22	No. 22 Boiler	CO ₂	112,501.56	113,043	<ul style="list-style-type: none"> 0.11 lbs CO₂/scf Fuel on a 365-day rolling basis See permit condition III.A.2
			CH ₄	6.52		
			N ₂ O	1.30		
H-2	H-2	No. 1 Vacuum Heater	CO ₂	37,571.78	37,754	<ul style="list-style-type: none"> 0.11 lbs CO₂/scf Fuel on a 365-day rolling basis See permit condition III.B.2
			CH ₄	2.18		
			N ₂ O	0.44		
H-64	H-64	No. 4 Hydrotreater Charge Heater	CO ₂	16,631.04	16,711	<ul style="list-style-type: none"> 0.11 lbs CO₂/scf Fuel on a 365-day rolling basis See permit condition III.B.2
			CH ₄	0.96		
			N ₂ O	0.19		
V-5	V-5	No. 1 SRU equipped with a Claus Burner and Tail Gas Incinerator ⁶	CO ₂	28,021.28	28,030	<ul style="list-style-type: none"> Good combustion and operating practices; Energy Efficient Design; 3-Stage Claus Burner System and SCOT tail gas treatment system; See permit condition III.C
			CH ₄	0.12		
			N ₂ O	0.02		
F-1CRUDE F-2CRUDE F-RLE F-4NHT F-HCU F-DHDSU F-GHDS F-SRU1 F-SRU2 F-WWTP F-ETNKFRM F-NTNKFRM F-WTNKFRM	FUGITIVES	Process Fugitive ⁸	CO ₂	No Numerical Limit Established ⁴	74.6	Incorporation of 28 VHP Monitoring. See permit condition III.E.
			CH ₄	3.55		
			N ₂ O	No Numerical Limit Established ⁴		
MSS-FLARE	MSS-CONTROL	Portable Combustion Control Device	CO ₂	11	12	Good combustion and operating practices. See permit condition III.D.
			CH ₄	0.03		
			N ₂ O	No Numerical Limit Established ⁴		

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1,2,3}	BACT Requirements
				TPY ²		
MSS Fugitives	MSSFUG	Process Fugitives MSS ⁸	CO ₂	No Numerical Limit Established ⁴	0.63	Incorporation of 28 VHP Monitoring. See permit condition III.E.
			CH ₄	0.03		
			N ₂ O	No Numerical Limit Established ⁴		
Totals ^{5,7}			CO ₂	194,736.66	195,625.2	
			CH ₄	13.39		
			N ₂ O	1.95		

1. Compliance with the annual emission limits (tons per year) is based on a 12-month rolling average.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations including MSS activities.
3. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
4. All values indicated as "No Numerical Limit Established" are less than 0.01 tpy with appropriate rounding. The emission limit will be a design/work practice standard as specified in the permit.
5. The total emissions for CH₄, N₂O, CO₂ and CO₂e do not include the PTE for process fugitive emissions only from increased fugitive components
6. Emissions include greenhouse gas emissions from fuel gas and acid gas combustion in SRU Claus burners and the tail gas incinerator.
7. Totals represent the amount of new or modified emission unit greenhouse gas emissions.
8. Process fugitive emissions are estimated for additional fugitive components only to be added by this project.

III. SPECIAL PERMIT CONDITIONS

A. Requirements for Boiler (EPN: B-22)

1. Fuel specifications: The fuel for the boiler is a mixture of refinery fuel gas and pipeline quality natural gas.
2. Boiler BACT Requirements:
 - a. The BACT limit of 0.11 lbs of CO₂/scf of fuel is based on a 365-day rolling average and will be obtained by using the daily calculation result of the CO₂ emissions and divided by the daily measured fuel consumption. The quotient of the divided result is added to the 365-day rolling average and is rolled daily. As an alternative, the Permittee may install and operate a volumetric stack gas flow monitor and associated data acquisition and handling system in accordance with the CO₂ CEMS system provided in 40 CFR 75.10(a)(3) and (a)(5).
 - b. The Permittee shall calculate, on a monthly basis, the amount of CO₂e emitted from the boiler in tons/yr based on the procedures and Global Warming Potential (GWP) contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395). Compliance shall be based on a 12-month rolling basis.
 - c. Calculations to demonstrate compliance with the 12-month rolling limits shall be

completed no later than 30 days after the end of the 12-month rolling period.

3. Boiler Work Practice and Operational Requirements

- a. Compliance with the CO₂e Annual Emission Limit shall be demonstrated on a 12-month rolling basis as follows:
 - t. Permittee shall calculate on a monthly basis the amount of CO₂ emitted from combustion in tons/yr using the measured fuel consumption, the measured carbon content and equation C-5 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - n. Permittee shall calculate on a monthly basis the CH₄ and N₂O emissions from combustion using the measured fuel consumption, the measured fuel actual heat content and equation C-8 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - iii. Calculations shall be completed no later than 30 days after the end of the 12-month rolling period
- b. The fuel carbon content and gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR 98.34(a). Records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the boiler or shall allow a sample to be taken by EPA for analysis.
- c. The flow rate of the fuel combusted shall be measured and recorded using an operational totalizing fuel flow meter at the inlet.
- d. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
- e. Permittee shall perform and document boiler burner tune-ups (including inspection of the burner, flame pattern and air-to-fuel ratio) at a minimum of annually.
- f. The boiler is not expected to have GHG emissions in excess of the allowed emission rates during periods of startup, shutdown or maintenance.
- g. Permittee shall perform a preventative maintenance check of oxygen control analyzers and document annually.

B. Requirements for Heaters (EPNs: H-2 and H-64)

1. **Fuel specifications:** The fuel for the heaters is a mixture of refinery fuel gas and pipeline quality natural gas.
2. **Heater BACT Requirements:**
 - a. The BACT limit of 0.11 lbs of CO₂/scf of fuel for each heater is based on a 365-day rolling average and will be obtained by using the daily calculation result of the CO₂ emissions and divided by the daily measured fuel consumption. The quotient of the divided result is added to the 365-day rolling average and is rolled daily. As an alternative, the Permittee may install and operate a volumetric stack gas flow monitor and associated data acquisition and handling system in accordance with the

C02 CEMS system provided in 40 CFR 75.10(a)(3) and (a)(5).

- b. The Permittee shall calculate, on a monthly basis, the amount of C02e emitted from each heater in tons/yr based on the procedures and Global Warming Potential (GWP) contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395). Compliance shall be based on a 12-month rolling basis.
- c. Calculations to demonstrate compliance with the 12-month rolling limits shall be completed no later than 30 days after the end of the 12-month rolling period.

3. Heater Work Practice and Operational Requirements

- a. Compliance with the C02e Annual Emission Limit shall be demonstrated on a 12-month rolling basis as follows:
 - i. Permittee shall calculate on a monthly basis the amount of CO₂ emitted from combustion in tons/yr using the measured fuel consumption, the measured carbon content and equation C-5 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - ii. Permittee shall calculate on a monthly basis the CH₄ and N₂O emissions from combustion using the measured fuel consumption, the measured fuel actual heat content and equation C-8 in 40 CFR Part 98 Subpart C, converted to short tons based on a 12-month rolling basis.
 - iii. Calculations shall be completed no later than 30 days after the end of the 12-month rolling period starting one year after the start of operation of the proposed changes.
- b. The fuel carbon content and gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR 98.34(a). Records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the heater or shall allow a sample to be taken by EPA for analysis.
- c. The flow rate of the fuel combusted shall be measured and recorded using an operational totalizing fuel flow meter at the inlet.
- d. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
- e. Permittee shall perform heater burner tune-ups at a minimum of annually.
- f. Permittee shall perform a preventative maintenance check of oxygen control analyzers and document annually.
- g. The heaters are not expected to have GHG emissions in excess of the allowed emission rates during periods of startup, shutdown, or maintenance.

C. No.1 Sulfur Recovery Unit (EPN: V-5)

Sulfur Recovery Unit Work Practice and Operational Requirements:

- a. The Permittee shall calculate, on a monthly basis, the amount of C02e emitted from EPN V-5 in tons/yr based on the procedures and Global Warming Potential (GWP) contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A,

Table A-1, as published on October 30, 2009 (74 FR 56395). Compliance shall be based on a 12-month rolling basis. Calculations to demonstrate compliance with the 12-month rolling limits shall be completed no later than 30 days after the end of the 12-month rolling period.

- b. Compliance with the CO₂e Annual Emission Limit shall be demonstrated on a 12-month rolling basis as follows:
 - 1. For EPN V-5, the monthly CO₂ mass emission limit shall be calculated as follows:
 - ii. For the Sulfur Recovery Unit, the Permittee shall calculate on a monthly basis the amount of CO₂ emitted using the measured volumetric flow rate of sour gas feed and equation Y-12 of 40 CFR part 98 Subpart Y, converted to short tons.
 - iii. For the three-Stage Claus Burner and SCOT Tail Gas Incinerator, the Permittee shall calculate on a monthly basis the amount of CO₂ emitted from combustion in tons/yr using equation C-5 in 40 CFR Part 98 Subpart C, converted to short tons.
 - iv. As an alternative, the Permittee may install and operate a volumetric stack gas flow monitor and associated data acquisition and handling system in accordance with the CO₂ CEMS system provided in 40 CFR 75.10(a)(3) and (a)(5).
 - 2. The calculated CO₂ emissions from the Sulfur Recovery Unit and Claus Burner and SCOT Tail Gas Incinerator shall be summed and added to the 12-month rolling total.
 - 3. Permittee shall calculate on a monthly basis the CH₄ and N₂O emissions on a 12-month rolling basis using the measured fuel consumption, the measured actual heat input and equation C-8 in 40 CFR Part 98 Subpart C, converted to short tons.
- c. Calculations of CO₂, CH₄ and N₂O emissions shall be completed no later than 30 days after the end of the 12-month rolling period starting one year after the start of operation of the proposed changes.
- d. The daily volumetric flow rate of the sour gas feed to the Claus Burner and Tail Gas Incinerator shall be measured and recorded at the inlet to the unit.
- e. The daily flow rate of the fuel combusted in the SRU shall be measured and recorded using an operational totalizing fuel flow meter at the inlet.
- f. For the Claus burner and Tail Gas Incinerator, the fuel carbon content and gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR 98.34(a). Records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the boiler or shall allow a sample to be taken by EPA for analysis.
- g. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
- h. The permittee shall utilize a three-stage Claus system equipped with a SCOT process tail gas treating system.
- i. The permittee shall demonstrate compliance with the DRE by maintaining the tail gas incinerator firebox temperature at a minimum of 1,297°F and the exhaust oxygen concentration shall be maintained at not less than 1 percent while waste gas is being

fed into the SRU incinerator. The tail gas incinerator shall be operated with not less than the oxygen concentration and firebox average temperature maintained above the minimum temperature maintained during the last satisfactory stack test performed in accordance with Special Condition V.J. During startup and shutdown, the oxygen concentration is limited to 0.25 percent for less than one hour and the temperature is limited to 750°F for less than one hour. A record shall be maintained indicating the start and end times for each startup and shutdown activity.

The tail gas incinerator fire box exit temperature and oxygen concentration shall be continuously monitored and recorded. The temperature measurement device shall reduce the temperature readings to an average period of 15-minute blocks or less and record it at that frequency. The temperature monitor shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ± 2 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

Quality-assured (or valid) data must be generated when the tail gas incinerator is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the tail gas incinerator operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

D. Portable Combustion Control Device (EPN: MSSCONTROL)

Portable Combustion Control Device Work Practice and Operational Requirements

- a. MSS emissions from the new stabilized crude oil tanks shall be vented to a portable combustion control device (portable thermal oxidizer (TO) or portable Flare). The portable TO is the preferred combustion control device and the portable flare shall be used as a back-up alternative to the portable thermal oxidizer.
- b. The CO_{2e} emissions from the portable TO shall be calculated monthly for the 12-month rolling emission limit and are based on 40 CFR 98.33, equation C-1. The calculations must be based on the applicable measured parameters specified in special condition i of this section. Records of the CO_{2e} 12-month rolling average must be kept and made available for inspection for five years.
- c. The permittee shall maintain a combustion temperature at a minimum of 1,400°F at all time when processing waste gases from the new stabilized crude oil tanks. Temperature monitoring of the portable TO will ensure proper operation. The permittee shall install and maintain a temperature recording device. The firebox temperature shall be monitored continuously and recorded during all times when processing waste gases in the portable TO. In addition, the flow rate of the waste gases routed to the TO is limited to assure at least a 0.5 second combustion chamber residence time at all times when the device is in use.
- d. Any monitoring device used to demonstrate compliance with the proper functioning of EPN MSSCONTROL shall be installed, calibrated, maintained and operated in

accordance with the manufacturer's instructions.

- e. If the portable TO is not available for use, the portable flare may be used. The calculations of the CO₂e emissions from the portable flare are based on 40 CFR 98.253 equation Y-3 and shall be added to the monthly CO₂e 12-month rolling emission limit. The calculations must be based on the measured parameters specified in special condition h of this section. Records of the CO₂e 12-month rolling average must be kept and made available for inspection for five years.
- f. The portable flare is an intermittent use MSS flare, not a continuous process flare.
- g. The portable flare can be either air assisted or non-assisted.
- h. For a portable flare, the permittee shall use one of the following methods to demonstrate compliance with the requirements of 40 CFR 60.18.
 - i. The permittee shall continuously monitor the net heating value of the gas stream routed to the flare.
 - ii. The permittee shall continuously monitor the total volume of supplemental fuel added to the gas stream routed to the flare and continuously maintain sufficient supplemental fuel to meet the minimum net heating value requirements in 40 CFR §60.18 assuming that the net heating value contribution from the degassed vapor is equivalent to a level corresponding to 50% of the lower explosive limit (LEL). The permittee may estimate the volumetric flow rate from the tank or vessel for the purpose of this calculation if the flow rate of the degassed vapor is not directly monitored.
 - iii. The permittee shall use calculations to demonstrate that for the material stored in the tank or vessel the net heating value of the gas stream routed to the flare cannot drop below the minimum net heating value requirements in 40 CFR §60.18 until the concentration of VOC in the vapors being routed to the flare is less than 50 percent of the LEL or 34,000 parts per million by volume (ppmv) of VOC at zero percent oxygen.
 - iv. If the flare is a non-assisted flare that qualifies for the provisions in 40 CFR §60.18(c)(3)(i), the permittee may elect to continuously monitor the hydrogen content of the gas stream routed to the flare and continuously meet the minimum 8.0% by volume hydrogen content requirement in lieu of the requirements in clauses (i) -(iii) of this special condition.
- i. Permittee must record the time, date, fuel volume and heat input (HHV) in MMBtu/hr and duration of each MSS event. If the portable TO is used, the combustion chamber temperature and residence times (or the periodic control efficiency demonstration) shall be maintained for each MSS event. If the portable flare is used, the permittee shall keep records of the data used to comply with special condition b of this section.

E. Fugitive Emission Sources (EPNs: FUGITIVES and MSSFUG)

Fugitive Emission Sources Work Practice and Operational Requirements

- a. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be located to be reasonably accessible for fugitive emission monitoring during plant operation.
- b. The TCEQ 28 VHP leak detection and repair (LDAR) program for fugitive emissions

- of methane in the fuel gas line will be implemented for this project. Any leaking component should be repaired and recorded as required in the 28 VHP program.
- c. The gas detector shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with CH₄ and have a response factor no less than 10 for the pollutant or combination of pollutants being measured. Replacements for leaking components should be remonitored no later than 15 days after placed back in service.
 - d. A weekly audio, visual inspection program will be used to determine methane leaks from the fugitive components in the fuel piping.

IV. Recordkeeping and Reporting

A. Records

1. In order to demonstrate compliance with the GHG emission limits in Table 1, the Permittee will monitor the following parameters and summarize the data on a calendar month basis.
 - a. Operating hours for all air emission sources;
 - b. Records of the fuel consumed by each source;
 - c. The fuel usage for all combustion sources, using continuous fuel flow monitors (a group of equipment can utilize a common fuel flow meter, as long as actual fuel usage is allocated to the individual equipment based upon actual operating hours and maximum firing rate);
 - d. Semi-annual fuel sampling for natural gas, daily fuel sampling of refinery fuel gas, or other frequencies as allowed by 40 CFR Part 98 Subpart C §98.34(b)(3); and
2. Permittee shall maintain a file of all records, data, measurements, reports, and documents related to the operation of the subject facilities, including, but not limited to, the following: all records or reports pertaining to significant maintenance performed on any system or device at the facility; duration of startup, shutdown; the initial startup period for the emission units; pollution control units; malfunctions; all records relating to performance tests, calibrations, checks, and monitoring of combustion equipment; duration of an inoperative monitoring device and emission units with the required corresponding emission data; and all other information required by this permit recorded in a permanent form suitable for inspection. The file must be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.
3. Permittee shall maintain records of all GHG emission units and CO₂ emission certification tests and monitoring and compliance information required by this permit.
4. Permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator or authorized representative, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:

- a. Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
 - b. Applicable time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
 - c. A statement in the report of a negative declaration; that is; a statement when no excess emissions occurred or when the monitoring equipment has not been inoperative, repaired or adjusted; and
 - d. Any failure to conduct any required source testing, monitoring, or other compliance activities.
5. Excess emissions shall be defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit, a malfunction occurs, or any other unauthorized emissions occur.
 6. Excess emissions indicated by GHG emission source certification testing or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit.
 7. All records required by this PSD Permit shall be retained for not less than 5 years following the date of such measurements, maintenance, and reporting.

V. Initial Performance Testing Requirements:

- A. The Permittee shall perform stack sampling and other testing to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the stacks of the Boiler (EPN B-22), Heaters (EPNs H-2 and H-64), SRU equipped with an incinerator (EPN V-5), and to determine the initial compliance with the CO₂ emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b for the concentration of CO₂.
 1. Multiply the CO₂ hourly average emission rate determined under maximum operating test conditions by 8,760 hours.
 2. If the above calculated CO₂ emission total does not exceed the tons per year (TPY) specified on Table 1, no compliance strategy needs to be developed.
 3. If the above calculated CO₂ emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall;
 - a. Document the exceedance in the test report; and
 - b. Explain within the report how the facility will assure compliance with the CO₂ emission limit listed in Table 1.
- B. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not Later than 180 days after initial startup of the facility, performance tests(s) must be conducted and a written report of the performance testing results furnished to the EPA. Additional sampling may be required by TCEQ or EPA.
- C. Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
- D. The boiler (EPN B-22), heaters (EPNs H-2 and H-64) and SRU equipped with an incinerator

- (EPN V-5), shall operate at maximum production rates during stack emission testing.
- E. Performance tests must be conducted under such conditions to ensure representative performance of the affected facility. The owner or operator must make available to the EPA such records as may be necessary to determine the conditions of the performance tests.
 - F. The owner or operator must provide the EPA at least 30 days' prior notice of any performance test, except as specified under other subparts, to afford the EPA the opportunity to have an observer present and/or to attend a pre-test meeting. If there is a delay in the original test date, the facility must provide at least 7 days prior notice of the rescheduled date of the performance test.
 - G. The owner or operator shall provide, or cause to be provided, performance testing facilities as follows:
 - 1. Sampling ports adequate for test methods applicable to this facility,
 - 2. Safe sampling platform(s),
 - 3. Safe access to sampling platform(s), and
 - 4. Utilities for sampling and testing equipment.
 - H. Unless otherwise specified, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply.
 - I. Emissions testing for the boiler (EPN B-22), as outlined above, shall be performed every three years to verify continued performance at permitted emission limits.
 - J. Emissions testing for the heaters (EPNs H-2 and H-64) and SRU equipped with an incinerator (EPN V-5), shall be performed every five years, plus or minus 6 months, after the previous performance test was performed, or within 180 days after the issuance of a permit renewal, whichever comes later to verify continued performance at the permitted emission limits.

VI. Agency Notifications

Permittee shall submit GHG permit applications, permit amendments, and other applicable permit information to:

Multimedia Planning and Permitting Division
EPA Region 6
1445 Ross Avenue (6 PD-R)
Dallas, TX 75202
Email: Group R6AirPermits@EPA.gov

Permittee shall submit a copy of all compliance and enforcement correspondence as required by this Approval to Construct to:

Compliance Assurance and Enforcement Division
EPA Region 6
1445 Ross Avenue (6 EN)
Dallas, TX 75202



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Diamond Shamrock Refining Company, L.P.
Authorizing the Construction and Operation of
Valero McKee Refinery
Located at **Sunray, Moore County, Texas**
Latitude 35° 56' 54" *Longitude* -101° 53' 30"

Permits: 9708 and PSDTX861M3

Amendment Date: April 6, 2018

Expiration Date: April 6, 2028


For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]¹
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] ¹
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. ¹

¹ Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Special Conditions

Permit Numbers 9708 and PSDTX861M3

1. This permit authorizes emissions only from those points listed in the attached table entitled "Attachment D - Facility List," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on the attached table entitled "Emission Sources –Maximum Allowable Emission Rates" (MAERT) and other requirements specified in this permit.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration of greater than 1 weight percent are not authorized by this permit unless authorized on the maximum allowable emission rates table. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

Federal Applicability

3. The full list of federal rule applicability for this site may be found in Federal Operating Permit Number O1555.
4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):
 - A. Subpart A, General Provisions.
 - B. Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
 - C. Subpart H, Standards of Performance for Sulfuric Acid Plants.
 - D. Subpart J, Standards of Performance for Petroleum Refineries; including:
 - (1) Fluidized Catalytic Cracking Unit (FCCU) Regeneration Vent (EPN V-20) for emissions of carbon monoxide (CO), sulfur dioxides (SO₂), and particulate matter (PM) and opacity limitations
 - (2) Heaters and boilers (except those subject to NSPS Subpart Ja as listed below)
 - (3) No. 1 SRU (EPN V-5)
 - (4) No. 2 SRU (EPN V-16)
 - E. Subpart Ja, Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007; including:
 - (1) No. 1 Main Flare (EPN FL-1) effective 01/01/2012
 - (2) FCCU Flare (EPN FL-3) effective 01/01/2012
 - (3) HCU Flare (EPN FL-4) effective 01/01/2012
 - (4) Wastewater Flare (EPN FL-6) effective 01/01/2009

- (5) No. 2 Main Flare (EPN FL-8) effective upon startup for emissions of sulfur oxides (SO_x) limitations. [Note: No. 2 Main Flare (FL-8) is subject to Subpart Ja since it was constructed after Subpart Ja applicability date].
 - (6) Boilers B-22A and B-22B (EPN B-22) (NO_x and SO₂ emissions)
 - (7) No. 4 Hydrotreater Charge Heater (EPN H-64) – SO₂ emissions only
- F. Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.
- G. Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture.
- H. Subpart GGG, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after January 4, 1983, and on or Before November 7, 2006.
- I. Subpart GGGa, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006; including:
 - (1) No. 1 Crude Unit/Dehexanizer (EPN F-1CRUDE)
 - (2) No. 2 Crude Unit (EPN F-2CRUDE)
 - (3) Refinery Light Ends (EPN F-RLE)
 - (4) No. 4 Naphtha Fractionator (EPN F-4HT)
 - (5) Hydrocracker (EPN F-HCU)
 - (6) Turbine Merox (EPN F-GASPLT)
 - (7) Diesel Hydrodesulfurization Unit (EPN F-DHDSU)
 - (8) Gasoline Hydrodesulfurization Unit (EPN F-GHDS)
 - (9) No. 1 SRU (EPN F-SRU1)
 - (10) No. 2 SRU (EPN F-SRU2)
 - (11) Wastewater Treatment Plant (EPN F-WWTP)
 - (12) East Tank Farm (EPN F-ETNKFRM)
 - (13) North Tank Farm (EPN F-NTNKFRM)
 - (14) West Tank Farm (EPN F-WTNKFRM)

- J. Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.
 - K. Subpart QQQ, Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems.
 - L. Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
5. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61:
- A. Subpart A, General Provisions.
 - B. Subpart BB, National Emission Standard for Benzene Emissions from Benzene Transfer Operations.
 - C. Subpart FF, National Emission Standard for Benzene Waste Operations.
6. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:
- A. Subpart A, General Provisions.
 - B. Subpart CC, National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries.
 - C. Subpart UUU, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units.
 - D. Subpart ZZZZ, National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
 - E. Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.
 - F. Subpart GGGGG, National Emission Standard for Hazardous Air Pollutants: Site Remediation.

Storage of Volatile Organic Compounds (VOC)

7. Fixed roof tanks Tank 144 (EPN S-044) and Tank 232 (EPN S-142) service is limited to storing caustic (maximum vapor pressure less than 0.1 psia).
- Fixed roof tanks Tank 27 (EPN S-063) and Tank 28 (EPN S-064) service is limited to storing asphalt (maximum vapor pressure less than 0.1 psia).

Horizontal tanks Tank T-9 (EPN S-168), Tank T-3 (EPN S-173), Tank T-2 (EPN S-174), and Tank T-1 (EPN S-175) service is limited to storing lube oil (maximum vapor pressure less than 0.1 psia).

Fixed roof tanks Latex Tank 1 (EPN S-179) and Latex Tank 2 (EPN S-180) service is limited to storing light cycle oil (maximum vapor pressure less than 0.1 psia).

Internal floating roof tank Tank 940T1 (EPN S-184) and external floating roof tanks Tank T101 (EPN S-195), Tank T102 (EPN S-196), and Tank 940T2 (EPN S-233) service is limited to storing sour water (maximum vapor pressure less than 0.7 psia).

Internal floating roof tanks Tank T109 (EPN S-197) and Tank T115 (EPN S-199) service is limited to storing sour water (maximum vapor pressure less than 0.9 psia).

External floating roof tanks Tank 5M1 (EPN S-227) and Tank 5M2 (EPN S-228) service is limited to slop oil (maximum vapor pressure less than 0.9 psia).

Fixed roof tank Tank 200M5 (EPN S-234) service is limited to gas oil (maximum vapor pressure less than 0.1 psia).

Fixed roof tank Additive Tank (EPN ADDITIVETK) service is limited to biodiesel additive (maximum vapor pressure less than 0.1 psia).

8. Storage tanks are subject to the following requirements: The control requirements specified in parts A-C of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 pounds per square inch, absolute (psia) at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.

A. The tank emissions must be controlled as specified in one of the paragraphs below:

- (1) An internal floating deck or "roof" shall be installed. A domed external floating roof tank is equivalent to an internal floating roof tank. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.
- (2) An open-top tank shall contain a floating roof (external floating roof tank) which uses double seal or secondary seal technology provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

B. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and any seal gap measurements specified in Title 40 Code of Federal Regulations § 60.113b (40 CFR § 60.113b) Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) or § 63.1063 Floating Roof Requirements (as amended at 64 FR 34918, June 29, 1999), as applicable, to verify fitting and seal integrity. Records shall be maintained of the dates inspection was performed, any measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.

- C. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
- D. Except for labels, logos, etc. not to exceed 15 percent of the tank total surface area, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
- E. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

These records shall be maintained at the plant site for at least five years and made available to representatives of the TCEQ upon request. For compliance demonstration purposes, the holder of this permit may use the meteorological data contained in AP-42, dated March 1998, or later version.

Emissions from tanks shall be calculated using the methods that were used to determine the MAERT limits in the permit amendment application (PI-1 dated April 4, 2014). Sample calculations from the application shall be attached to a copy of this permit at the plant site.

- 9. The following requirements apply to the floating roof tank EPN: S-233.
 - A. The tank shall be constructed with a sloped bottom and a sump that can be emptied to less than 1 percent of its nominal volume. The mesa floor tank design is an acceptable alternative for a drain dry tank.
 - B. The tank shall be constructed or equipped with the capability for connection to a vapor recovery system that routes vapors from the vapor space under the landed roof to a control device.
 - C. The tank's outlet to the vapor recovery system shall be located at a height from the tank's floor no less than 90 percent of the tank roof's leg height, or be of such a design that demonstrably allows the control of no less than 90 percent of the vapors generated under the floating roof during tank re-filling.
- 10. Carbon Adsorption Systems (CAS) that are used to control emissions from storage tank sumps, or other equipment shall meet the following requirements:
 - A. The CAS shall consist of two carbon canisters in series with adequate carbon supply for the emission control operation.

- B. The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:
- (1) CAS systems equipped with an upstream liquid scrubber may be sampled once every 12 hours of CAS run time to determine breakthrough.
 - (2) Sampling frequency may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.
- The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If breakthrough is monitored on the initial sample of the upstream can when the polishing can is put in place, a permit deviation shall be recorded.
- C. The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 67.A, B, or D.
- D. Breakthrough is defined as the highest measured VOC or benzene concentration at or exceeding 100 ppmv or 5 ppmv, respectively, above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within 24 hours. In lieu of replacing canisters, the flow of waste gas may be discontinued until the canisters are switched. Sufficient new activated carbon canisters shall be available to replace spent carbon canisters such that replacements can be done in the above specified time frame.
- E. Records of CAS monitoring shall include the following:
- (1) Sample time and date.
 - (2) Monitoring results (ppmv).
 - (3) Canister replacement log.
- F. Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.
- G. Liquid scrubbers may be used upstream of carbon canisters to enhance VOC capture provided such systems are closed systems and the spent absorbing solution is discharged into a closed container, vessel, or system.

Loading of Volatile Organic Compounds (VOC)

11. Loading operations at the Truck Loading Rack (FIN L-2), Railcar Loading Rack (FIN L-7), Truck Loading Rack (FIN L-11), and MSAT II Railcar Loading Rack (FIN L-15) are limited to the liquids identified below at the rates indicated.

Loading Rack	FIN	Liquid	Loading Rate (gallons/hour)
Truck Loading Rack	L-2	CB Asphalt	842
		Asphalts	25,500
		Gas Oil	25,500
Railcar Loading Rack	L-7	Asphalts	25,500
		Gas Oil	25,500
Truck Loading Rack	L-11	Gasoline	54,000
		Diesel/Biodiesel/Turbine Fuel	60,000
		Denatured Ethanol	5,400
MSAT II Railcar Loading Rack	L-15	35% Benzene / 50% Benzene	63,000

12. The permittee shall not allow gasoline to be loaded into a tank truck or railcar unless the tank truck or railcar has passed a leak-tight test within the past 12 months. Certification of testing shall be presented for each vessel which demonstrates that the vessel passed a leak test conforming to the requirements of 40 CFR Part 63, Subpart R.

All tank trucks loading other materials with a vapor pressure greater than 0.5 psia at this facility shall be leak-tight tested a minimum of once per year using the method described in the EPA regulations in 40 CFR Part 60, Subparts A and XX on Standards of Performance for New Stationary Sources promulgated for Bulk Gasoline Terminals.

13. When loading materials at the Truck Loading Rack (FIN L-11) and the MSAT II Railcar Loading Rack (FIN L-15), the following requirements shall apply:
- A. Emissions from loading materials having a vapor pressure greater than or equal to 0.5 psia at the maximum loading temperature shall be routed to the Loading Rack Vapor Combustion Unit (VCU) (EPN FL-7).
 - B. All loading operations at FIN L-11 shall be controlled. Captured vapors from loading materials at the Truck Loading Rack (FIN L-11) shall be routed to the VCU (EPN FL-7).
 - C. The VCU (EPN FL-7) shall meet the requirements of Maximum Available Control Technology Subpart R for Gasoline Loading (emissions of VOC no greater than 10 milligrams/liter of gasoline loaded) and a destruction efficiency of no less than 98 percent for materials other than gasoline.
14. Operation without visible liquid leaks or spills shall be maintained at all loading/unloading facilities, regardless of vapor pressure. This does not apply to momentary dripping associated with the initial connection or disconnection of fittings. Sustained dripping from fittings during loading/unloading operations is not permitted. Any liquid spill that occurs during loading/unloading activities that results in emissions that exceed a reportable quantity shall be reported pursuant to Title 30 Texas Administrative Code §§ 101.201 or 101.211 (30 TAC §§ 101.201 or 101.211) and shall be cleaned up immediately to minimize air emissions.

15. All lines and connectors shall be visually inspected for any defects prior to hookup. Lines and connectors that are visibly damaged shall be removed from service. Operations shall cease immediately upon detection of any liquid leaking from the lines or connections.
16. Benzene concentrate loading emissions from the MSAT II Railcar Loading Rack (FIN L-15) shall be vented to Vapor Combustor (EPN FL-7).
17. The permit holder shall maintain and update monthly an emissions record which includes calculated emissions of VOC from all loading operations over the previous rolling 12 month period. The record shall include the loading spot, control method used, quantity loaded in gallons, name of the liquid loaded, vapor molecular weight, liquid temperature in degrees Fahrenheit, liquid vapor pressure at the liquid temperature in psia, liquid throughput for the previous month and rolling 12 months to date. Emissions from loading operations shall be calculated using the methods that were used to determine the MAERT limits in the permit amendment application (PI-1 dated April 4, 2014). Sample calculations from the application shall be attached to a copy of this permit at the plant site.

These records shall be maintained at the plant site for at least five years, and be made available to representatives of the TCEQ upon request. For compliance demonstration purposes, the holder of this permit may use the meteorological data contained in AP-42 dated March 1998, or later version.

18. Records of VOC temperature are not required to be kept for liquids loaded from unheated tanks which receive liquids that are at or below ambient temperatures. Loading emissions may be credited with a 98.7 percent collection efficiency for vessels leak-checked annually.
19. Meeting the requirements of Subpart XX specified in Special Condition 12 allows for a 98.7% collection efficiency to be used in emission calculations.
20. Railcars that are leak checked and certified in accordance with Title 49 CFR § 180.509 as evidenced by a stamp which shows the date the railcar last passed the leak-tight test at least once annually and are associated with welded or bolted (not quick connect) connects can use 100% collection efficiency in emission calculations.

Operating Parameters and Conditions

21. Flares shall be designed and operated in accordance with the following requirements:
 - A. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity at all times when emissions may be vented to them.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office in addition to New Source Performance Standards (NSPS) or federal requirements, to demonstrate compliance with these requirements.
 - B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of steam assist to the flare.
- D. The permit holder shall maintain flow monitors and composition analyzers according to Paragraph E of this condition for the following flares:
- FL-1 No. 1 Main Refinery Flare;
 - FL-3 FCCU Flare;
 - FL-4 HCU Flare;
 - FL-6 Wastewater Flare; and
 - FL-8 No. 2 Main Refinery Flare.
- E. Each flare shall be equipped with one of the following:
- (1) Operation and maintenance of a flare gas recovery system.
 - (2) A continuous flow monitor and composition analyzer that provides a record of the flare gas flow and composition of either the total VOC or heating value of the flare gas.

The flow monitor sensor and analyzer sample point shall be installed as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour.

The flow monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor must be calibrated to manufacturer's specifications; the temperature monitor must be calibrated to within ± 2.0 percent at absolute temperature; the pressure monitor must be calibrated to within ± 5.0 mmHg.

If VOC monitoring is chosen: Calibration of the analyzer shall follow the procedures and requirements of Section 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR § 60.18(f) (3) as amended through October 17, 2000 (65 FR 61744).

If heating value is chosen: The calorimeter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to

continuously measure and record the net heating value of the gas sent to the flare, in British thermal units/standard cubic foot of the gas.

In all cases (VOC monitoring and/or Btu content) the monitors and analyzers shall operate as required by this section at least 95% of the time when the flares are operational, averaged over a rolling 12 month period. Flared gas net heating value and volumetric flow rate shall be recorded at least once every 15 minutes. Actual exit velocity determined in accordance with 40 CFR §60.18(f) (4) shall be available upon request.

- F. Records of the flows shall be maintained for a period of five years and be made available to the Executive Director of the TCEQ upon request.
22. The following requirements apply to capture systems for the plant flare system.
- A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
 - B. The control device shall not have a bypass; or

If there is a bypass for the control device, comply with either of the following requirements:
 - (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
 - (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals that prevent flow out the bypass.

These requirements do not apply to high point vent and low point drain valves. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when required to be in service per this permit.
 - C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above.

Catalytic Oxidizer

- 23. The Catalytic Oxidizer, EPN No. OX-001 shall maintain the VOC concentration in the exhaust gas less than 10 ppmv on a dry basis.
- 24. The Catalytic Oxidizer firebox exit temperature shall be maintained at not less than 1400° F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the firebox while waste gas is being fed into the oxidizer.

25. The Catalytic Oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency. Temperature measurements recorded in continuous strip charts may be used to meet the requirements of this section.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

Vapor Combustor

26. EPN FL-7 shall achieve at least 98 percent control of the VOC emissions directed to it. This shall be ensured by maintaining the fifteen-minute average temperature in or immediately downstream of the combustion chamber above 1297°F based on the minimum one-hour average temperature maintained during the last satisfactory stack test dated May 11, 2011.

The temperature measurement device shall reduce the temperature readings to an averaging period of 15 minutes or less and record it at that frequency. The temperature monitor shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ± 2 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

Quality-assured (or valid) data must be generated when the VCU is operating except during calibration. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the VCU operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

The vapor combustor shall be operated with no visible emissions and have a constant pilot flame during all times waste gas could be directed to it. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

- A. EPN FL-7 shall not have a bypass. However, if there is a bypass for the control device, comply with either of the following requirements:
- (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
 - (2) Once a month, inspect the valves, verifying that the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device. A bypass for this paragraph does not include analyzer vents that are permitted, highpoint bleeder vents or low point drains for maintenance, or rupture discs used in series with pressure relief valves that have pressure monitoring between which is checked and recorded at least weekly.

- B. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Boilers and Heaters

27. There shall be no visible emissions from the heaters or boilers except for those periods described in 30 TAC § 111.111(a).
28. Unless otherwise specified, all boilers and heaters are subject to the firing rates, CO concentrations, and NO_x emission rates contained in Attachment E of this permit.
29. A selective catalytic reduction (SCR) system using aqueous or anhydrous ammonia shall be installed and operated to meet the nitrogen oxides (NO_x) and ammonia (NH₃) emission limits of this special condition and the MAERT for Boilers B-22A and B-22B (EPN B-22). Emissions from EPN B-22 shall not exceed the following limits except during periods of planned maintenance, startup, and shutdown (MSS), as specified in the MSS special conditions:
- A. 0.010 pound per Million British thermal units (lb/MMBtu HHV) NO_x based upon a 365-day rolling average, and 0.015 lb/MMBtu HHV NO_x based upon a one-hour average.
- B. 50 parts per million by volume, dry basis (ppmvd) carbon monoxide (CO), at 3 percent O₂ based upon a 365-day rolling average, and 100 ppmvd, 3 percent O₂ based upon a one-hour average.
- C. 10 ppmvd NH₃, at 3 percent O₂ based on one-hour average.

Piping, Valves, Connectors, Pumps, and Agitators - 28VHP

30. Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:
- A. The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- piping and instrumentation diagram (PID);
 - a written or electronic database or electronic file;
 - color coding;
 - a form of weatherproof identification; or
 - designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, and pump systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in Paragraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve;
or
 - (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.
- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR Part 60, Appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided in the special conditions of this permit, all pump and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.

- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shut down as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shut down or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- K. Alternative monitoring frequency schedules of 30 TAC 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
- M. As an alternative to comparing the daily emission rate of the components on the delay of repair (DOR) list to the total emissions from a unit shutdown per the requirements of Special Condition No. 30, Subparagraph I, the cumulative hourly emission rate of all components on the DOR list may be compared to ten percent of the fugitive short term allowable on the Maximum Allowable Emission Rate Table in order to determine if the TCEQ Regional Director and any local program is to be notified. In addition, the hourly emission rates of each specific compound on the DOR list must be less than ten percent of the speciated hourly fugitive emission rate of the same compound.

Compressors in Contact with VOC - Intensive Directed Maintenance - 28MID

- 31. Except as may be provided for in the special conditions of this permit, the following requirements apply to compressor seals:

- A. The requirements of paragraphs B and C shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68° F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made available upon request.

The exempted components may be identified by one or more of the following methods:

- piping and instrumentation diagram (PID);
 - a written or electronic database or electronic file;
 - color coding;
 - a form of weatherproof identification; or
 - designation of exempted process unit boundaries.
- B. An approved gas analyzer shall conform to requirements listed in Method 21 of 40 CFR Part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

- C. All new and replacement compressors shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system.

All other compressor seals shall be monitored with an approved gas analyzer at least quarterly.

- D. Damaged compressor seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shut down as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shut down or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- E. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- F. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard, or an applicable National Emission Standard for Hazardous Air Pollutants and does not constitute approval of alternative standards for these regulations.

Piping, Valves, Pumps, and Compressors in H₂S, SO₂, or NH₃ Service

- 32. Piping, Valves, Pumps, and Compressors in H₂S, SO₂, or ammonia (NH₃) service are subject to the following requirements:
 - A. Audio, olfactory, and visual checks for H₂S, SO₂, and NH₃ leaks within the No. 1 and No. 2 Sulfur Plants, Amine Regenerators, Sour Water Strippers, and process streams that have greater than 2 percent H₂S by weight shall be made once per shift.
 - B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take one of the following actions:
 - (1) Isolate the leak,
 - (2) Commence repair or replacement of the leaking component, or
 - (3) Use a leak collection or containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

- C. Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the TCEQ upon request.

Sulfur Recovery Units (SRUs)

33. The No. 1 SRU Incinerator Vent (EPN V-5) and the No. 2 SRU Incinerator Vent (EPN V-16) firebox exit temperatures shall be maintained at not less than 1297°F and 1260°F, respectively, and exhaust oxygen concentration shall be maintained at not less than 1 percent while waste gas is being fed into either SRU Incinerator. There shall be no visible emissions from the SRU Incinerator Vents except for those periods described in 30 TAC § 111.111(a).

After the initial stack test has been completed, the tail gas incinerator (TGI) shall be operated with not less than the oxygen concentration maintained during the last satisfactory stack test performed in accordance with Special Condition No. 45. The firebox chamber 15 minute block average temperature shall be maintained above the minimum 15-minute block average temperature maintained during the last satisfactory stack test performed in accordance with Special Condition No. 45.

The tail gas incinerator (TGI) firebox exit temperature and oxygen concentration shall be continuously monitored and recorded. The temperature measurement device shall reduce the temperature readings to an averaging period of 15-minute blocks or less and record it at that frequency. The temperature monitor shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ±2 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

Quality-assured (or valid) data must be generated when the tail gas incinerator is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the tail gas incinerator operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

34. The No. 1 SRU Incinerator (EPN V-5) and the No. 2 SRU Incinerator Vent (EPN V-16) shall each either operate with no less than 99.9 percent efficiency in disposing of the acid gas waste streams or operate with an exhaust hydrogen sulfide concentration of less than 5 ppmv, corrected to 3 percent oxygen. The demonstration of the 99.9 percent control efficiency of the No.1 SRU Incinerator and the No. 2 SRU Incinerator will be determined via the temperature monitoring required in Special Condition No. 33.
35. The minimum sulfur recovery efficiency for the No. 1 and No. 2 Sulfur Plants shall be 99.8 percent. The sulfur recovery efficiency shall be determined by calculation as follows:

$$\text{Efficiency} = \frac{(\text{S recovered}) * (100)}{(\text{S acid gas})}$$

Where:

$$\text{Efficiency} = \text{sulfur recovery efficiency, percent}$$

S recovered = S produced, Long tons per day (LTPD)

S acid gas = (S recovered plus S stack), LTPD

S stack = sulfur in the incinerator stack, LTPD

The average sulfur emission reduction efficiency (sulfur recovery efficiency) shall be demonstrated for each calendar day by a mass balance calculation using data obtained from the incinerator stack SO₂ monitor, sulfur production records, and other process data. The daily sulfur recovery efficiency shall be calculated on a monthly basis.

36. Prior to the modification of the SRU No. 1 to 50 LTPD capacity, the total sulfur recovered from SRU Trains (SRU No. 1, SRU No. 2, and the refinery Sulfuric Acid Plant) shall not exceed 73.8 LTPD. After the modification of the SRU No. 1 to 50 LTPD capacity, the total sulfur recovered from SRU Trains (SRU No. 1, SRU No. 2, and the refinery Sulfuric Acid Plant) shall not exceed 100 LTPD.
37. All acid gas streams from the amine regeneration units, desalter stripper overhead, and sour water stripper overheads, containing H₂S shall be routed to the SRUs, acid plants, or recycled under normal operating conditions. It is not permissible under any conditions to vent acid gases directly to the atmosphere.
38. Sour gas emissions from the sulfur pits, sulfur storage, and sulfur loading operations shall be collected by a vapor collection system and routed either back to the SRU thermal reactor or to the SRU tail gas incinerator (TGI).
39. Compliance with Particulate Matter emissions from Tail Gas Incinerators V-5 and V-16 shall be determined using the maximum flow rate determined during the most recent successful stack test and the emission factor submitted in the permit amendment application (PI-1 dated April 4, 2014).

Cooling Towers

40. This condition shall apply to the No. 1 Refinery Cooling Tower (EPN F-20), the Gasoline Plant Cooling Tower (EPN F-21) and the No. 2 Refinery Cooling Tower (EPN F-47). The cooling water shall be monitored monthly for VOC leakage from heat exchangers in accordance with the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or another air stripping method approved by the TCEQ Executive Director.

Air stripped cooling water VOC concentrations above 0.08 ppmw indicate faulty equipment. Equipment shall be maintained so as to minimize VOC emissions into the cooling water. Faulty equipment shall be repaired at the earliest opportunity but no later than the next scheduled shutdown of the process unit in which the leak occurs.

Emissions from the cooling tower are not authorized if the VOC concentration of the water returning to the cooling tower exceeds 0.8 ppmw. The VOC concentrations above 0.8 ppmw are not subject to extensions for delay of repair under this permit condition. The results of the monitoring and maintenance efforts shall be recorded.

41. The No. 1 Refinery Cooling Tower (EPN F-20), the Gasoline Plant Cooling Tower (EPN F-21) and the No. 2 Refinery Cooling Tower (EPN F-47) shall be equipped with drift eliminators that achieve a maximum drift of 0.001 percent. Cooling water shall be sampled once a week for total dissolved solids (TDS). Dissolved solids in the cooling water drift are considered to be emitted as PM. The data shall result from collection of water samples from the cooling tower feed water and represent the water being cooled in the tower. Water samples should be capped upon collection, and transferred to a laboratory area for analysis. The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, or SM 2540 C [SM - 19th edition or later of Standard Methods for Examination of Water]. Use of an alternative method shall be approved by the TCEQ Regional Director prior to its implementation.

The permit holder may reduce the frequency of sampling for TDS by establishing a correlation between TDS and conductivity for the cooling tower as follows.

- A. For a minimum period of four weeks the cooling water shall be sampled once a week for analysis of total dissolved solids (TDS) and conductivity. The analysis method for conductivity shall be ASTM D1125-95A or SM2510 B. The data from the initial side-by-side measurements of TDS and conductivity shall be graphed and a slope calculated. A safety factor of two standard deviations will be applied to the slope for data quality expectation. A report including the weekly results, a data assessment and correlation of TDS to conductivity will be maintained on-site.
- B. Following the completion of the report, the cooling water shall be sampled daily for conductivity and the result converted to TDS from the established correlation.
- C. The correlation will be rechecked annually with a single cooling water sample analysis for TDS and conductivity. The measured TDS value shall be compared to that estimated using the measured conductivity and the established correlation. If the calculated TDS value falls either above or below two standard deviations of the calculated slope, a new correlation effort shall be conducted in accordance with paragraph A of this condition.

Cooling tower PM emissions shall be determined using the cooling tower water circulation rates, cooling tower design drift, and the measured or estimated TDS.

Fluidized Catalytic Cracking Unit (FCCU)

42. The following applies to the FCCU Regeneration Vent/Vent Gas Stack (EPN V-20):

- A. The maximum allowable concentration of the following pollutants in the FCCU flue gas vent stack averaged over a one-hour period are given below:

Pollutant	Allowable Concentration
carbon monoxide(CO)	500 ppmv (dry basis) @ 0% O ₂ , 1-hour average
sulfur dioxide (SO ₂)	50 ppmvd @ 0% O ₂ 7-day rolling average
sulfur dioxide (SO ₂)	25 ppmvd @ 0% O ₂ 365-day rolling average
nitrogen oxides (NO _x)	100 ppmv @ 0% O ₂ ; 7-day rolling average
nitrogen oxides (NO _x)	50 ppmv @ 0% O ₂ ; 365-day rolling average

Pollutant	Allowable Concentration
volatile organic compounds (VOC)	10 ppmv
ammonia (NH ₃)	100 ppmv

All concentrations shall be measured on a ppmvd basis; SO₂ and NO_x concentrations are measured on an air-free basis.

- B. Emissions of PM from the FCCU stack (EPN V-20), established in stack tests performed May 21, 2008, shall not exceed 2.0 pound per 1,000 pounds of coke burn-off, on an hourly average.
- C. Emissions of PM from the FCCU stack (EPN V-20) shall not exceed 1.0 pound per 1,000 pounds of coke burn-off (front half only according to 40 CFR 60, Appendix A, Method 5B or 5F, as appropriate), measured as a one-hour average over three performance test runs.
- D. Emissions of Hydrogen Cyanide (HCN) from the FCCU stack (EPN V-20) shall not exceed 0.63 pounds per 1,000 pounds of coke burn-off or the maximum rate determined from the individual test runs during the most recent stack test whichever is higher.

The permit holder shall maintain an emissions record which includes calculated emissions of HCN from the FCCU during the previous calendar month and the past consecutive 12 month period.

- E. For purpose of estimating emissions, the maximum and average coke burn-off rate (tons per hour) and hours of operation shall be recorded daily and shall be maintained on-site. Coke burn-off rate shall be determined using the equation specified in 40 CFR Part 60.106(b)(3). These records shall be maintained for a minimum of five years and made available to representatives of the TCEQ or local program upon request.

Monitoring devices used to determine the coke burn rate per NSPS J 60.106 shall reduce readings to an averaging period of 6 minutes or less and record it at that frequency. Monitors shall be installed and calibrated at least annually, and maintained according to the manufacturer's specifications.

Quality assured (or valid) data must be generated when the FCCU is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the FCCU operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

- 43. The opacity of emissions from the FCCU stack shall not exceed 20 percent averaged over a six-minute period, as determined by an opacity monitoring device or a trained observer, except during soot blowing, the cleaning of a firebox or the building of a new fire, equipment changes, ash removal, and rapping of precipitators, aggregating up to six minutes in any 60 consecutive minutes and no more than six hours in any ten-day period as provided for in 30 TAC § 111.111(a)(1)(E).

Initial Determination of Compliance

44. Sampling ports and platform(s) shall conform to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.
45. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the following sources to demonstrate compliance with the MAERT:

Heaters and boilers with maximum firing rates greater than 40 MMBtu/hr and less than 100 MMBtu/hr (EPNs H-2, H-8, H-9, H-11, H-26, H-36, H-40, H-42, H-43, H-45, H-48, H-80, B-4, and B-6), FCCU (EPN V-20), SRU No. 1 and No. 2 Incinerators (EPNs V-5 and V-16), Sulfuric Acid Plant Vent (EPN V-29), No. 1 and No. 2 Reformer Regeneration Vents (EPNs V-18 and V-21), and Truck and Railcar Vapor Combustor (Loading Rack Vapor Combustor EPN FL-7).

The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods.

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60) testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

- A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include.
 - (1) Proposed date for pretest meeting.
 - (2) Date sampling will occur.
 - (3) Name of firm conducting sampling.
 - (4) Type of sampling equipment to be used.
 - (5) Method or procedure to be used in sampling.
 - (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
 - (7) Procedure/parameters to be used to determine worst case emissions during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

- B. Air contaminants to be tested for include (but are not limited to) the following for the various units:

- (1) Heaters and boilers - NO_x and carbon monoxide (CO).
 - (2) FCCU regenerator - CO, PM (both front and back-half of the sampling train), hydrogen cyanide (HCN), and sulfuric acid mist.
 - (3) SRU/SCOT TGIs - NO_x, CO, PM (both front and back-half of the sampling train), and total reduced sulfur.
 - (4) Reformer regeneration vents - hydrogen chloride and chlorine.
 - (5) Vapor combustors - VOC, NO_x, and CO.
 - (6) Sulfuric Acid Plant - sulfuric acid mist.
- C. Sampling of emission points and air contaminants not monitored by an emission monitoring system under the Continuous Determination of Compliance section (Special Conditions 46 through 49) of these conditions shall occur as follows:
- (1) Each emission point and subject air contaminant(s) shall be sampled at least every five years.
 - (2) In addition, each emission point shall be sampled within 60 days of achieving maximum operation, not to exceed 180 days after initial operation, or when a physical change at the facility or its control system results in an increase of allowable emissions. If the EPN is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required if the firing rate exceeds the tested firing rate by more than 10 percent (additional testing will not be required if the EPN is equipped with a CEMS).
 - (3) As may be required by the Executive Director of the TCEQ.
- Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires the EPA approval, and requests shall be submitted to the appropriate regional office.
- D. Each emission point subject to stack emission testing shall be tested when the facility (or facilities) directly associated with the emission point is operating at maximum emissions potential. This maximum emission potential will occur at the maximum production, throughput, or firing rate associated with that facility. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report.
- E. Copies of the final sampling report shall be forwarded to the appropriate TCEQ Regional Office within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual.

- F. The following operating parameters shall be recorded simultaneously with each test run for HCN from the FCCU regenerator: FCCU feed rate, coke burn rate, regenerator temperature measurements, exhaust flows, carbon monoxide (CO) and oxygen concentrations.

Continuous Determination of Compliance

- 46. The holder of this permit shall install and maintain a continuous H₂S monitoring system in a representative location in the fuel gas system common to the affected combustion sources within this permit in accordance with the fuel sulfur monitoring requirements of 40 CFR § 60.105.
- 47. The holder of this permit shall install, calibrate, and maintain a continuous opacity monitoring system (COMS) to measure and record the opacity from the FCCU (EPN V-20) and shall install, calibrate, and maintain CEMS to measure and record:
 - A. CO, NO_x, and O₂ from the heaters and boilers with firing rates greater than 100 MMBtu/hr (including, but not limited to EPNs H-1, H-18, H-38, H-41, H-46, B-8, B-10, and B-11);
 - B. SO₂ and O₂ from the SRU/SCOT TGIs (EPNs V-5 and V-16);
 - C. SO₂ from the Acid Plant Stack (EPN V-29); and
 - D. NO_x, O₂, and SO₂ from the FCCU (EPN V-20).
- 48. All monitoring systems not in operation when this permit is issued shall be operational as follows:
 - A. Each COMS/CEMS shall be operational within 60 days of achieving maximum operation, not to exceed 180 days after initial operation, after physical changes have been made pursuant to the Emission Reductions section of these conditions.
 - B. The CEMS monitoring systems shall meet the following requirements:
 - (1) The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60), Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met.
 - (2) Section (a) below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section (b) applies to all other sources:

- (a) The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.
- (b) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or NESHAPS, in which case zero and span shall be done daily without exception.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.

- (3) The CEMS monitoring data shall be reduced to hourly average concentrations at least once weekly, using a minimum of four equally-spaced data points from each one hour period. The individual average concentrations from each CEMS shall be reduced to units of the permit allowable emission rate in pounds per hour (lb/hr) and cumulative TPY on a 12-month rolling average within 30 days of the end of each calendar quarter.
- (4) All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
- (5) The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.

- (6) Quality-assured (or valid) data must be generated when the facility is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the facility operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgement and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager
 - (7) This paragraph applies to the NO_x CEMS listed in Special Condition SC 47.A and the NO_x, SO₂, and O₂ CEMS listed in 47.D. In addition to the requirements of 48.C 1-6, the CEMS shall be installed, certified, calibrated, maintained, and operated in accordance with the provisions of 40 CFR 60.13 which are applicable only to CEMS (excluding those provisions applicable only to continuous opacity monitoring systems) and Part 60, Appendices A and F, and the applicable performance specification test of 40 CFR 60, Appendix B. With respect to 40 CFR 60 Appendix F, in lieu of the requirements of 40 CFR 60, Appendix F §5.1.1, 5.1.3, and 5.1.4, the source must conduct either a Relative Accuracy Audit (RAA) or a RATA on each CEMS at least once every three (3) years. The source must also conduct a CGA each calendar quarter during which a RAA or a RATA is not performed.
- C. The permit holder shall install, calibrate, operate, and maintain a continuous opacity monitoring system (COMS) to measure and record the opacity from the electrostatic precipitator (ESP) at the FCCU (EPN: V-20).
 - (1) The COMS monitoring data shall be reduced to six minute average opacity at least once weekly, using a minimum of six equally spaced data points for each minute.
 - (2) The COMS shall meet Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60), Appendix B Performance Specification No 1. The initial performance evaluation of the COMS required by the performance specification shall be conducted and passed within 60 days of start-up.
 - (3) The COMS shall meet the requirements of 40 CFR 60.13. The appropriate TCEQ Regional Manager will be the administrator for alternate monitoring requests, except where the monitoring is also required by an applicable New Source Performance Standard (NSPS, 40 CFR Part 60) or National Emission Standard for Hazardous Air Pollutants (NESHAP, 40 CFR Parts 61 or 63) where EPA Region 6 remains the administrator for alternate monitoring requests. Alternate monitoring requests should be submitted to the appropriate TCEQ Regional Director and EPA Region 6, when they are the administrator, with copies to any local air pollution.
 - (4) Monitoring data shall be recorded and maintained as specified in 40 CFR 60.7 (c), (d), (e) and (f).
 - (5) The appropriate TCEQ Regional Office and any local air pollution programs shall be notified at least 30 days prior to any required initial performance evaluation.

- (6) Quality-assured (or valid) data must be generated when the ESP is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the ESP is operated over the previous rolling 12-month period.
49. The NH₃ concentration in the Boilers B-22A and B-22B Stack (EPN B-22) shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below. Testing for NH₃ slip is only required when the SCR unit is in operation.
- A. The holder of this permit may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NH₃. The NH₃ concentrations shall be corrected in accordance with Special Condition No. 29.C.
 - B. As an approved alternative, the NH₃ slip may be measured using a sorbent or stain tube device specific for NH₃ measurement in the 5 to 10 ppm range. The frequency of sorbent or stain tube testing shall be daily for the first 60 days of operation, after which, the frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amounts of NH₃ from being introduced in the SCR unit and when operation of the SCR unit has been proven successful with regard to controlling NH₃ slip. Daily sorbent or stain tube testing shall resume when the catalyst is within 30 days of its useful life expectancy. These results shall be recorded and used to determine compliance Special Condition No. 29.C.
 - C. As an approved alternative to sorbent or stain tube testing or an NH₃ CEMS, the permit holder may install and operate a second NO_x CEMS probe located between the firebox and the SCR, upstream of the stack NO_x CEMS, which may be used in association with the SCR efficiency and NH₃ injection rate to estimate NH₃ slip. This condition shall not be construed to set a minimum NO_x reduction efficiency on the SCR unit. These results shall be recorded and used to determine compliance with Special Condition No. 29.C.
 - D. If the sorbent or stain tube testing indicates an ammonia slip concentration which exceeds 5 parts per million (ppm) at any time, the permit holder shall begin NH₃ testing by either the Phenol-Nitroprusside Method, the Indophenol Method, or EPA Conditional Test Method (CTM) 27 on a quarterly basis in addition to the weekly sorbent or stain tube testing. The quarterly testing shall continue until such time as the SCR unit catalyst is replaced; or if the quarterly testing indicates NH₃ slip is 4 ppm or less, the Phenol-Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent or stain tube testing again indicate 5 ppm NH₃ slip or greater. These results shall be recorded and used to determine compliance with Special Condition No. 29.C.
 - E. As an approved alternative to sorbent or stain tube testing, NH₃ CEMS, or a second NO_x CEMS, the permit holder may install and operate a dual stream system of NO_x CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one NO_x CEMS, and the other exhaust stream would be routed through a NH₃ converter to convert NH₃ to NO_x and then to a second NO_x CEMS. The NH₃ slip concentration shall be calculated from the delta between the two NO_x CEMS readings (converted and unconverted). These results shall be recorded and used to determine compliance with Special Condition No. 29.C.

Any other method used for measuring NH₃ slip shall require prior approval from the TCEQ Regional Director.

50. The No. 1 and No. 2 Reformer Cat Regenerator Vents (EPNs V-18 and V-21) are subject to National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart UUU. The No. 1 Reformer Cat Regenerator Vent (EPN V-18) shall be equipped with a wet scrubber while the No. 2 Reformer Cat Regenerator Vent (EPN V-21) shall be equipped with an internal scrubbing system.

Emission Reductions

51. The FCCU spent catalyst fines handling system bag filter (EPN V-30) shall meet no greater than 0.01 gr/dscf outlet grain loading.
52. The Unifiner Compressor's gas engine exhaust line catalytic converter (EPN E-7) shall control the outlet concentration of CO to no more than 225 ppmv.
53. Particulate matter shall not exceed 0.01 grain per dscf of air from the Water Treatment Lime Silo Vent (EPN V-14) or Soda Ash Silo Vent (EPN V-13). There shall be no visible emissions exceeding 30 seconds in any six-minute period that loading to the Water Treatment Lime Silo or Soda Ash Silo is occurring as determined using U.S. Environmental Protection Agency (EPA) Test Method 22. This determination shall be made by first observing for visible emissions while each facility is in operation. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point(s). Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70 degree viewing sector or angle in front of the observer such that the proper sun position (at the observer's back) can be maintained for all three emission points.

Loading to the Water Treatment Lime Silo and Soda Ash Silo shall not occur unless control devices and associated equipment are maintained in good working order and operating. All vents will be inspected for visible emissions during loading of the silos. Records shall be maintained of all inspections and maintenance performed.

The differential pressure across each baghouse shall be continuously monitored while loading to the silos is occurring. The pressure drop shall be at least 0.25 inches water and shall not exceed 6 inches of water. An alarm detector system shall be used to notify operator personnel if the pressure drop falls below the minimum or exceeds the maximum specified. Loading shall be discontinued if the alarm is activated and shall not resume until the baghouse is restored to good working order.

Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 0.5 inches water gauge pressure or 2.0 percent of span.

Emission Compliance Recordkeeping

54. Recordkeeping programs for those facilities authorized and covered by this permit shall be established and maintained such that the ability to demonstrate compliance with all authorized individual permit limits and emission caps (short-term lb/hr and annual TPY) is ensured. Records of all compliance testing, CEM results, and process parameters (including short-term and annual production rates, fuel gas flow rates, etc.) necessary to demonstrate compliance with the emissions limits shall be maintained on-site for a period of five years and made available to representatives of the TCEQ upon request.
55. Emission calculations for verifying compliance with the maximum allowable emission rates shall be performed at least once every calendar quarter. The emissions shall be determined by using the following techniques. When a technique is not specified below for a specific facility type, the holder of this permit shall use the technique that was presented in the permit amendment application (PI-1 dated April 4, 2014).

Storage Tanks - As specified in Special Condition 8.E of this permit, short-term emission rates shall be based on the maximum expected filling rate (fixed-roof) and the higher of the filling rate or withdrawal rate (floating roof).

Loading - AP-42 Chapter 5.2-4 (Fifth Edition) L_L Equation - The collection efficiency shall be as documented in the permit application. Emissions from control devices shall be determined using the emission factor (in mg/l) determined through testing pursuant to the special conditions of this permit. The manufacturer's guaranteed emission factor may be used if the most recent stack testing has verified that factor.

Fugitives - Component counts, emission factors, and reduction credits specified in the permit application for the 28VHP, 28MID, and AVO maintenance program.

Boilers/Heaters - CEM information if such a device is installed. The most recent stack test results if a CEM is not installed. If no stack sampling is required, use the proper emission factor for the specific unit from the permit application and the measured daily Btu value and daily average flow rate of the fuel gas.

Cooling Towers - Measured strippable VOC concentration (as specified in these conditions) and the cooling tower circulation rate.

SRU/FCCU - CEM information if such a device is installed. Use the most recent stack test for those compounds which are not subject to CEM requirements. If no stack sampling is required, use the proper emission factor for the specific unit from the permit application. The permittee shall record once-per-day the average coke burn-off rate and hours of operation of the FCCU catalyst regenerator.

Flares – As provided in Special Condition 21.D and E.

Compliance with the annual emission caps and individual emission limitations of this permit shall be based on a 12-month rolling average of emissions (emissions shall be calculated for individual calendar months and summed for consecutive 12-month periods for comparison to the emission limits).

Combustion Source Limitations

56. Heaters and Boilers

- A. All combustion sources covered under this permit shall be fired with either sweet natural gas as defined in 30 TAC Chapter 101 or with refinery fuel gas containing no more than 134 ppmv and 60 ppmv hydrogen sulfide (H₂S) on three-hour and annual average basis, respectively.
- B. The permit holder shall install and operate a fuel flow meter with a computer that collects, sums, and stores electronic data to measure the gas fuel usage for each combustion source with a maximum design capacity equal to or greater than 40 MMBtu/hr. MMBtu/hr and fuel usage for each shall be recorded at least monthly. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or annually, whichever is more frequent, and shall be accurate to within 5 percent. For combustion sources with CEMS; in lieu of monitoring the fuel flow, the permit holder may monitor stack exhaust flow using the flow monitoring specifications of 40 CFR Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

Quality assured (or valid) data must be generated when the combustion source is operating. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the combustion source operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

For orifice plates used to measure flow, the calibration requirement applies to the instrument used to monitor the pressure drop across the orifice plate.

57. Heater and boiler emissions shall meet the following NO_x emission limits:

Source Name	Source Description	Final Permit Limit, lb/MMBTU	Emission Limit Averaging Period
H-1	No. 1 Crude Charge Heater	0.040	365-day rolling average
H-41	No. 2 Crude Charge-Born	0.044	365-day rolling average
H-18	No. 1 CCR Charge Heater 201	0.044	365-day rolling average
	No. 1 CCR Charge Heater 202		
	No. 1 CCR Charge Heater 203		
H-38	No. 2 Reformer Chg Heater 1	0.039	365-day rolling average
	No. 2 Reformer Chg Heater 2		
	No. 2 Reformer Chg Heater 3		
H-46	No. 1 CCR Ref No. 1 Interheater	0.046	365-day rolling average
B-8	No. 15 Boiler	0.108	365-day rolling average

Source Name	Source Description	Final Permit Limit, lb/MMBTU	Emission Limit Averaging Period
B-10	No. 18 Boiler	0.039	365-day rolling average
B-11	No. 19 Boiler	0.039	365-day rolling average
B-12	600# Boiler	0.180	365-day rolling average
B-9	No. 16 Boiler	0.060	365-day rolling average
B-4	No. 11 Boiler	0.220	3-hour average
B-5	No. 12 Boiler	0.000 (shut down)	3-hour average
B-6	No. 13 Boiler	0.190	3-hour average
B-7	No. 14 Boiler	0.000 (shut down)	3-hour average
B-3	No. 10 Boiler	0.000 (shut down)	3-hour average
H-80	FCC Gas HDS Charge Heater	0.030	3-hour average
H-26	No. 2 Vacuum Heater	0.044	365-day rolling average
H-8	HCU Frac Charge Heater (Petrochem North)	0.053	3-hour average
H-11	No. 2 Crude Charge-Anderson	0.042	3-hour average
H-45	No. 1 Hydrotreater Charge Heater	0.030	3-hour average
H-42	HCU Recycle Heater	0.041	3-hour average
H-43	HCU DeC ₄ Reboiler Heater	0.038	3-hour average
H-2	No. 1 Vacuum Heater	0.046	3-hour average
H-36	No. 2 Naphtha Hydrotreater Charge Heater	0.031	3-hour average
H-40	No. 1 PDA Asphalt Heater (Asphalt-South)	0.128	3-hour average
H-48	Diesel Hydrotreater Charge Heater	0.036	3-hour average
H-3	No. 1 Naphtha Reboiler Heater	0.000 (shut down)	3-hour average
H-9	No. 2 Crude Heater (Petrochem South)	0.148	3-hour average
H-13	GO Fractionator Heater	0.180	3-hour average

58. Within 60 days upon completion of stack sampling for EPN V-20 specified in Special Condition 45 of this permit, the permit holder shall submit an amendment application to TCEQ to provide the results of stack testing and update the representation of hydrogen cyanide (HCN) emissions from the FCCU. In lieu of the time allowed to complete the stack testing in SC 35.C(2), 90 days will be allowed. Updated representations may include any emission limits, control requirements, operational limits, monitoring, testing, recordkeeping, and reporting requirements necessary to demonstrate BACT and determine compliance with the emission limits identified in the permit. Additional requirements pertaining to the facility may be included as necessary as a result of this project.

Amendment Projects

59. The project authorized by the amendment application, dated June 16, 2011, is determined not to be subject to major new source review by identifying projected actual emission rates for the down-stream facilities potentially affected by the project. Projected actual and baseline emission rates for the potentially affected facilities are FCC Gasoline Charge Heater (EPN: H-80), Loading (EPN: L-11), and Vapor Combustor (EPN: FL-7) identified in Table C-1 (revised 08/23/2011) of that application. Actual emissions from those facilities shall be monitored (or calculated if no CEMS is required), recorded and reports made in accordance 30 TAC § 116.127 for the time period specified in 30 TAC § 116.127 (b) (1) for NO_x, CO, PM, SO₂, and VOC.
60. The HIDL modifications authorized by the permit dated October 23, 2012, are not subject to major new source review for NO_x, CO, PM, PM₁₀, PM_{2.5}, SO₂, and VOC provided the projected actual emission rates for the following facilities are not exceeded.

EPN/Description	Pollutant	Projected Actuals
H-48/ Diesel Hydrotreater Charge Heater	NO _x	13.94 tpy
	CO	32.76 tpy
	VOC	2.09 tpy
	PM/PM ₁₀ /PM _{2.5}	2.89 tpy
	SO ₂	1.28 tpy
H-38/ No. 2 Reformer Charge Heater	NO _x	32.71 tpy
	CO	70.96 tpy
	VOC	4.53 tpy
	PM/PM ₁₀ /PM _{2.5}	6.25 tpy
	SO ₂	2.76 tpy

Upon completion of the modifications, the actual emissions from the affected sources shall be monitored (or calculated if no CEMS is required), recorded and reports made in accordance with 30 TAC § 116.127 for a period of 5 years as specified in 30 TAC § 116.127(b)(1).

61. The steam usage at the Diesel HDS Unit and #1 and #2 Crude and Vacuum Units as provided by Boiler 13 (EPN B-6), Boiler 15 (EPN B-8), Boiler 16 (EPN B-9), Boiler 18 (EPN B-10), and Boiler 19 (EPN B-11) shall be recorded on a calendar year basis for a period of five years as specified in 30 TAC § 116.127(b)(1) and shall not exceed 206,574 tpy.

The owner or operator shall submit a report to the executive director if the annual emissions from the project exceed the baseline actual emissions indicated by a significant amount for that pollutant or the annual steam produced exceeds the projected annual steam usage above. The report shall be submitted to the executive director within 60 days after the end of each recording period.

62. The FCC Gasoline Desulfurization Unit Changes, per the amendment application dated 05/18/2017, was determined not to be subject to major new source review. The total pounds of sulfur per day contained in heavy cat naphtha and light cat naphtha products are limited to 513.6 lbs sulfur per day based on a rolling 24- month basis. The 513.6 lbs sulfur per day limit is equivalent to the potential worst-case incremental increase in sulfur processing of 0.23 Long Tons per Day. Records shall be kept to show compliance with this special condition.

63. Total emissions from the following sources shall not exceed the following values during any consecutive 12-month period: Records shall be kept to show compliance with this special condition.

EPN	FIN	CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC
S-184	Sour Water Tank	—	—	—	—	1.42

Maintenance/Startup and Shutdown Emissions

64. Planned startup and shutdown emissions due to the activities identified in Special Condition No. 65 are authorized from facilities and emission points identified in Attachment D in other construction permits at the site provided the facility and emissions are compliant with the respective MAERT and Special Conditions, or Special Condition Number 74 of this permit.
65. This permit authorizes the emissions for the planned MSS activities summarized in the MSS Activity Summary (Attachment C) attached to this permit.

Additionally, this permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: frac tanks, containers, vacuum trucks, facilities used for painting or abrasive blasting, portable control devices identified in Special Condition No. 75, and controlled recovery systems. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent site facilities listed in Attachment D, and (c) does not operate as a replacement for an existing authorized facility.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the refinery. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity not identified in Attachments A or B and the emissions associated with it shall be recorded and include at least the following information:

- A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. the type of planned MSS activity and the reason for the planned activity;
- C. the common name or the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. the date on which the MSS activity occurred;

- E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

66. Process units and facilities, with the exception of those identified in Special Condition Nos. 69 (related to Floating Roof Tanks), 70 (related to Fixed-Roof Tanks), 72 (related to frac or temporary tanks), and activities listed in Attachment A shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements.
- A. The process equipment shall be depressurized to a control device or a controlled recovery system prior to venting to atmosphere, degassing, or draining liquid. Equipment that only contains material that is liquid with VOC true vapor pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to atmosphere and drained in accordance with paragraph C of this special condition without depressuring or degassing to a control device. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.
 - B. If mixed phase materials must be removed from process equipment, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. If the VOC true vapor pressure is greater than 0.50 psi at either the normal process temperature or 95°F, any vents in the system must be routed to a control device or a controlled recovery system. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. Control must remain in place until degassing has been completed or the system is no longer vented to atmosphere.
 - C. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids must be drained into a closed vessel or oily water sewer system unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained. After draining is complete, empty open pans may remain in use for housekeeping reasons to collect incidental drips.
 - D. If the VOC true vapor pressure is greater than 0.50 psi at the normal process temperature or 95°F, facilities shall be degassed using good engineering practice to ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. The facilities to be degassed shall not be vented directly to atmosphere, except as necessary to establish isolation of the work area or to monitor VOC concentration following controlled depressurization. The venting shall be minimized to the maximum extent practicable and actions taken recorded. The control device or recovery system utilized shall be recorded with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

The following requirements do not apply to fugitive components, pumps, pipeline pigging, and compressors.

- (1) For MSS activities identified in Attachment B, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
 - (2) The locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (PFD's, P&ID's or Turnaround and Inspection (T&I) plans may be used to demonstrate compliance with the requirement). Documented refinery procedures used to deinventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition No. 67. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. If there is not a connection (such as a sample, vent, or drain valve) available from which a representative sample may be obtained, a sample may be taken upon entry into the system after degassing has been completed. The sample shall be taken from inside the vessel so as to minimize any air or dilution from the entry point. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than or equal to 10,000 ppmv or 10 percent of the LEL. Documented site procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.
 - (3) Alternatively, the process equipment may be filled with a liquid with a VOC vapor pressure less than 0.147 psi while venting to control. If it can be verified that the liquid filled the entire process equipment or vessel, no sampling is necessary. If not, the VOC concentration shall be verified to be less than 10,000 ppmv or 10 percent of the LEL using an instrument meeting the requirements of Special Condition No. 67 while purging to control immediately after draining the liquid from the system. The locations and/or identifiers where the liquid enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (PFDs, P&IDs, or T&I Plans) may be used to demonstrate compliance with the requirement.
- E. Equipment vapors with VOC true vapor pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:
- (1) It is not technically practicable to depressurize or degas, as applicable, into the process.

- (2) There is not an available connection to a plant control system (flare).
- (3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

All instances of venting directly to atmosphere per Special Condition Number 66.E must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the work order, shift logs, or equivalent for those planned MSS activities identified in Attachment B.

67. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor (RF) of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate (RF) shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:

$$\text{VOC Concentration} = \text{Concentration as read from the instrument} \times \text{RF}$$

In no case should a calibration gas be used such that the RF of the VOC (or mixture of VOCs) to be monitored is greater than 5.0.

- (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. As an alternative the VOC concentration may be monitored over a five-minute period with an instrument designed to continuously measure concentration and record the highest concentration read. The highest measured VOC concentration shall be recorded and shall not exceed the specified VOC concentration limit prior to uncontrolled venting.
- (3) If a TVA-1000 series or equivalent FID analyzer calibrated with methane is used to determine the VOC concentration, a measured concentration of 34,000 ppmv may be considered equivalent to 10,000 ppmv as VOC.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

- (1) The air contaminant concentration measured as defined in (3) is less than 80 percent of the range of the tube and is at least 20 percent of the maximum range of the tube.
- (2) The tube is used in accordance with the manufacturer's guidelines.

- (3) At least two samples taken at least five minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

10,000*mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector.

- (1) The detector shall be calibrated within 30 days of use with a certified pentane/air mixture at 25 percent of the lower explosive limit (LEL) for pentane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.
- (2) A functionality test shall be performed on each detector within 24 hours of use with a certified gas standard at 25% of the LEL for pentane. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.
- (3) A certified methane gas standard equivalent to 25 percent of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95 percent of that for pentane.

D. For measuring benzene breakthrough on Carbon Adsorption Systems in Special Condition No. 10, a portable gas chromatograph using a flame ionization detector or photoionization detector may be used. Alternatively, a photoionization detector equipped with a benzene separation tube consistent with manufacturer requirements may be used. The monitor shall have the sensitivity and specificity to quantify low level benzene concentrations. The monitor device shall be calibrated within 24 hours of use with a certified calibration gas containing ~5 ppm benzene. Records of the calibration date/time and calibration result shall be maintained.

68. This condition applies only to piping and components subject to leak detection and repair monitoring requirements identified in other NSR permits. Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

A. a cap, blind flange, plug, or second valve must be installed on the line or valve; or

- B. the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.
69. This permit authorizes emissions from the storage tanks identified in the attached facility list during planned floating roof landings. Only one tank floating roof, authorized by this permit or Permit No. 138707, shall be refilled within the same hour. Tank roofs may only be landed for changes of tank service or tank inspection/maintenance as identified in the permit application, except when the VOC vapors below the floating roof are routed to a control device or a controlled recovery system from the time the floating roof is landed until the floating roof is within 10 percent by volume of being refloated. Tank change of service includes landings to accommodate seasonal RVP spec changes and landings to correct off spec material that cannot be blended into finished product tanks. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to tank roof landings.
- A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control or a controlled recovery system during this process.
- This requirement does not apply if the level is lowered to allow for maintenance that is expected to be completed in less than 24 hours. In that case, the tank must be filled and the roof floated within 24 hours of landing the roof and the evolution documented in accordance with Special Condition No. 69.E.
- B. If the VOC true vapor pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning. Floating roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC true vapor pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:
- (1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.

- (2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
 - (3) A volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition No. 67.
 - (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
 - (5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC true vapor pressure of the remaining liquid in the tank is less than 0.15 psia.
- C. The tank shall not be opened or ventilated without control, except as allowed by (1) or (2) below until one of the criteria in part D of this condition is satisfied.
- (1) Minimize air circulation in the tank vapor space.
 - (a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.
 - (b) Access points shall be closed when not in use
 - (2) Minimize time and VOC partial pressure.
 - (a) The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in part D.(1) of this condition;
 - (b) Blowers may be used to move air through the tank without emission control at a rate not to exceed 11,000 cfm for no more than 75 hours. All standing liquid shall be removed from the tank during this period; and
 - (c) Records shall be maintained of the blower circulation rate, the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.

- D. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
- (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
 - (2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
 - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.
 - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1,000 ppmw using EPA Method 1664 (may also use 8260B or 5030 with 8015 from SW-846).
 - (c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1,000 ppmv through the procedure in Special Condition No. 67.
 - (3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

- E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs with the following exceptions:
- (1) Only one tank with a landed floating roof can be filled at any time at a rate not to exceed 4,643 bbl/hr.
 - (2) The vapor space below the tank roof is directed to a control device when the tank is refilled until the roof is floating on the liquid. The control device used and the method and locations used to connect the control device shall be recorded. All vents from the tank being filled must exit through the control device.
- F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:
- (1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;

- (2) the reason for the tank roof landing;
 - (3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
 - (a) the roof was initially landed,
 - (b) all liquid was pumped from the tank to the extent practical,
 - (c) start and completion of controlled degassing, and total volumetric flow,
 - (d) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
 - (e) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
 - (f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and
 - (g) tank roof off supporting legs, floating on liquid;
 - (4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events c and g with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application.
- 70. Fixed-roof storage tanks are subject to the requirements of Special Condition No. 69.C and 69.D. If the ventilation of the vapor space is controlled, the emission control system shall meet the requirements of Special Condition No. 69.B(1) through 69.B(5). Records shall be maintained per Special Condition No. 69.F.(3)c through 69.F.(3)e, and 69.F.(4).
- 71. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:
 - A. Prior to initial use, identify any liquid in the truck. Record the liquid level and document the VOC partial pressure. After each liquid transfer, identify the liquid, the volume transferred, and its VOC partial pressure.
 - B. If vacuum pumps or blowers are operated when liquid is in or being transferred to the truck, the following requirements apply:
 - (1) If the VOC true vapor pressure of the liquid in or being transferred to the truck is greater than 0.50 psi at 95°F, the vacuum/blower exhaust shall be routed to a control device or a controlled recovery system.
 - (2) Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

- (3) A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.
 - (a) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.
 - (b) If the vacuum truck exhaust is controlled with a control device other than an engine or oxidizer, VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer shall be recorded, measured using an instrument meeting the requirements of Special Condition 67.A or B.
 - C. Record the volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.
 - D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis.
 - E. If the VOC true vapor pressure of all the liquids vacuumed into the truck is less than 0.10 psi, this shall be recorded when the truck is unloaded or leaves the plant site and the emissions may be estimated as the maximum potential to emit for a truck in that service as documented in the permit application. The recordkeeping requirements in Special Condition 71.A through 71.D do not apply.
72. The following requirements apply to frac, or temporary, tanks and vessels used in support of MSS activities.
- A. The exterior surfaces of these tanks/vessels that are exposed to the sun shall be white or aluminum effective May 1, 2013. This requirement does not apply to tanks/vessels that only vent to atmosphere when being filled, sampled, gauged, or when removing material.
 - B. These tanks/vessels must be covered and equipped with fill pipes that discharge within six inches of the tank/vessel bottom.
 - C. These requirements do not apply to vessels storing less than 450 gallons of liquid that are closed such that the vessel does not vent to atmosphere except when filling, sampling, gauging, or when removing material.

- D. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all frac tanks during the previous calendar month and the past consecutive 12 month period. This record must be updated by the last day of the month following. The record shall include tank identification number, dates put into and removed from service, control method used, tank capacity and volume of liquid stored in gallons, name of the material stored, VOC molecular weight, and VOC true vapor pressure at the estimated monthly average material temperature in psia. Filling emissions for tanks shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations" and standing emissions determined using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."
- E. If the tank/vessel is used to store liquid with VOC true vapor pressure less than 0.10 psi at 95°F, records may be limited to the days the tank is in service and the liquid stored. Emissions may be estimated based upon the potential to emit as identified in the permit application.
73. Additional occurrences of MSS activities authorized by this permit (see Special Condition No. 65 where the authorized activities are summarized) may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.
74. All permanent facilities must comply with all operating requirements, limits, and representations in the permits identified in Attachment D during planned startup and shutdown unless alternate requirements and limits are identified in this permit. Alternate requirements for emissions from routine emission points are identified below.
- A. Combustion units, with the exception of flares, at this site are exempt from NO_x and CO operating requirements identified in special conditions in other NSR permits during planned startup and shutdown if the following criteria are satisfied.
- (1) The maximum allowable emission rates in the permit authorizing the facility are not exceeded.
 - (2) The startup period does not exceed eight hours in duration and the firing rate does not exceed 75 percent of the design firing rate. The time it takes to complete the shutdown does not exceed 4 hours.
 - (3) Control devices are started and operating properly when venting a waste gas stream.
- B. The limits identified below apply to the operations of the specified facilities during startup and shutdown.

EPN	Source Name	Parameter	Limit	Duration
V-5	SRU No.1 Incinerator	O ₂	0.25%	<15 hour
		Temperature	750 ° F	<15 hour
V-16	SRU No.2 Incinerator	O ₂	0.25%	<15 hour
		Temperature	750 ° F	<15 hour

These alternate limits do not authorize bypassing of the Tail Gas Treatment Units.

- C. A record shall be maintained indicating that the start and end times of each of the activities identified above occur and documentation that the requirements for each have been satisfied.
75. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

Controlled recovery systems identified in this permit shall be directed to an operating refinery process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

- A. The CAS shall comply with the requirements in Special Condition No. 10 during planned MSS operations authorized by this permit.
- B. Single Carbon Adsorption or Scrubber System.

As an alternative to the requirements in paragraph A.(6) and A.(7), a single liquid scrubbing or single carbon adsorption system may be used as a sole control device if the requirements below are satisfied.

- (1) The exhaust to atmosphere shall be continuously monitored with a CEM. The VOC concentration shall be recorded at least once every 15 minutes when waste gas is directed to the CAS or scrubber.
 - (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 67 except 67.C.
 - (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background and 2 percent of the system inlet concentration. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. Monitoring must be performed upstream of the carbon can as well to demonstrate collection efficiency. The date and time of all alarms and the actions taken shall be recorded.
- C. The Catalytic Oxidizer shall comply with requirements in Special Condition Nos. 23, 24, and 25 during planned MSS operations authorized by this permit.
 - D. Internal Combustion Engine.
 - (1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

- (2) The engine must have been stack tested with butane or propane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable EPA Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance that may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition No. 67 are also acceptable for this documentation.
- (3) The engine shall be operated and monitored in accordance with either a or b below.
 - (a) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the, manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation.
 - (b) The engine exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the engine. The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 67.A. An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.
- E. The plant flare system shall comply with the requirements in Special Condition No. 21 during planned MSS operations authorized by this permit.
- F. A liquid scrubbing system may be used as a sole control device or in conjunction with carbon adsorption if the requirements below are satisfied.
 - (1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.
 - (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 67.A.

- (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

G. A closed loop refrigerated vapor recovery system

- (1) The vapor recovery system shall be installed on the facility to be degassed using good engineering practice to ensure air contaminants are flushed from the facility through the refrigerated vapor condensers and back to the facility being degassed. The vapor recovery system and facility being degassed shall be enclosed except as necessary to insure structural integrity (such as roof vents on a floating roof tank).
- (2) VOC concentration in vapor being circulated by the system shall be sampled and recorded at least once every four hours at the inlet of the condenser unit with an instrument meeting the requirements of Special Condition No. 67.
- (3) The quantity of liquid recovered from the tank vapors and the tank pressure shall be monitored and recorded each hour. The liquid recovered must increase with each reading and the tank pressure shall not exceed one inch water pressure while the system is operating.

H. Other control devices approved by the TCEQ through a permit amendment application or a pollution control permit application.

76. If spray guns are used to apply paint, they shall be airless, high volume low pressure (HVLP), or have the same or higher transfer efficiency as airless or HVLP spray guns.

77. Emissions from all painting activities, except for minor painting identified in Attachment A to this permit, at this site must satisfy the criteria below. New compounds may also be added through the use of the procedure below.

- A. Short-term (pounds per hour [lb/hr]) and annual (TPY) emissions shall be determined for each chemical in the paint as documented in the permit application. The calculated emission rate shall not exceed the maximum allowable emissions rate at any emission point.
- B. The Effect Screening Level (ESL) for the material shall be obtained from the TAMIS database or by written request to the TCEQ Toxicology Section.
- C. The total painting emissions of any compound must satisfy one of the following conditions:
 - (1) The total emission rate is less than 0.1 lb/hr and the ESL greater than or equal to 2 $\mu\text{g}/\text{m}^3$; or
 - (2) The emission rate of the compound in pounds per hour is less than the ESL for the compound divided by 1,000 ($\text{ER} < \text{ESL}/1,000$).

- D. The permit holder shall maintain records of the information below and the demonstrations in steps A through C above. The following documentation is required for each compound:
- (1) Chemical name(s), composition, and chemical abstract registry number if available.
 - (2) Material Safety Data Sheet.
 - (3) Maximum concentration of the chemical in weight percent.
 - (4) Paint usage and the associated emissions shall be recorded each month and the rolling 12 month total emissions updated.
78. No visible emissions shall leave the property due to painting or abrasive blasting.
79. Black Beauty may be used for abrasive blasting. Abrasive blasting activities authorized by this permit and Permit No. 138707 shall not occur within the same hour. The permit holder may also use blast media that meet the criteria below:
- A. The media shall not contain asbestos or greater than 1.0 weight percent crystalline silica.
 - B. The weight fraction of any metal in the blast media with a short-term ESL less than 50 micrograms per cubic meter as identified in the most recently published TCEQ ESL list shall not exceed the $ESL_{\text{metal}}/1,000$.
 - C. The MSDS for each media used shall be maintained on site.
- Blasting media usage and the associated emissions shall be recorded each month and the rolling 12 month total emissions updated.
80. Planned maintenance activities must be conducted in a manner consistent with good practice for minimizing emissions, including the use of air pollution control equipment, practices and processes. All reasonable and practical efforts to comply with Special Condition Nos. 64 through 79 must be used when conducting the planned maintenance activity, until the commission determines that the efforts are unreasonable or impractical, or that the activity is an unplanned maintenance activity.

Dated: April 6, 2018

ATTACHMENT A

Permit Numbers 9708 and PSDTX861M3 Inherently Low Emitting Activities

Activity	Emissions				
	VOC	NOx	CO	PM	H ₂ S/SO ₂
Inspection, repair, and replacement of analyzer filters/screens	x				
Inspection, repair, and replacement of process filters/screens	x				
Inspection, repair, replacement, adjustment, testing, and calibration of CEMS analyzers		x	x		x
Inspection, repair, replacement, adjustment, testing, and calibration of process instrumentation	x				
Carbon canister inspection, repair, and replacement (valve disconnect)	x				
Catalyst replacement	x				
Tank seal inspections and other tank inspection activities	x				
Water washing empty drums, totes, and misc. small equipment	x				
Meter proving	x				
Adhesives application	x				
Sample collection	x				
Cold solvent degreaser	x				
Insulation/refractory handling				x	
Combinations of the above	x	x	x	x	x

Dated: April 6, 2018

ATTACHMENT B

Permit Numbers 9708 and PSDTX861M3 Routine Maintenance Activities

Planned MSS activities performed with work orders where the isolated system volume is less than 30 cubic feet. These include activities:

Pump, compressor, vessel, exchanger, combustion source, boiler inspection, repair, replacement, valve and piping maintenance/replacement not included in Attachment A

Pipeline pigging, compressor maintenance, maintenance on light liquid pumps where purged to slop or flare, maintenance on heavy liquid pumps where purged to slop or flare, maintenance on heavy liquid pumps where purged to open containers

Dated: April 6, 2018

ATTACHMENT C

Permit Numbers 9708 and PSDTX861M3 MSS Activity Summary

Facilities	Description	Emissions Activity
all process heaters and boilers	heater, boiler, and/or SCR shutdown, startup, refractory curing, and/or maintenance	vent to atmosphere
all process units	process unit and/or individual equipment shutdown/depressurize/drain	vent to flare
all process units	process unit and/or individual equipment purge/degas/drain/clean	vent to atmosphere
all process units	process unit and/or individual equipment process unit startup	vent to flare
all process vents	shutdown, startup, and/or maintenance	vent to atmosphere
all vacuum or air mover trucks	various maintenance activities	vent to control device and/or atmosphere
all frac or temporary tanks	various maintenance activities	vent to control device and/or atmosphere
all process units and tanks	preparation for facility/component repair/replacement	vent to flare and/or equivalent control
all process units and tanks	preparation for facility/component repair/replacement	vent to atmosphere
all process units and tanks	including but not limited to: recovery from facility/component repair/replacement	vent to flare and/or equivalent control
all process units and tanks	recovery from facility / component repair/replacement	vent to atmosphere
all process units and tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid
all production-related	all production related refinery facilities	painting
all floating roof tanks	tank roof landing	operation with landed roof
all floating roof tanks	degas of tank with landed roof	controlled degassing
all tanks	tank cleaning	cleaning activity and solvents
see Attachment A	miscellaneous low emitting activities	see Attachment A
all production-related	abrasive blasting	PM from blasting media

Dated: April 6, 2018

ATTACHMENT D

Permit Numbers 9708 and PSDTX861M3 Facility List

COMBUSTION SOURCES:

EPN	Source Name
B-10	No. 18 Boiler
B-11	No. 19 Boiler
B-12	600 # Boiler
B-22	Boilers B-22A and B-22B
B-4	No. 11 Boiler
B-6	No. 13 Boiler
B-8	No. 15 Boiler
B-9	No. 16 Boiler
H-1	No. 1 Crude Charge Heater
H-11	No. 2 Crude Charge Heater-Anderson
H-13	Gas Oil Fractionator Heater
H-14	Unifiner Charge Heater
H-15	No. 1 Naphtha Hydrotreater Charge Heater
H-18	No. 1 Reformer Charge Heater (Charge, 3, 4 Inter-Heaters)
H-2	No. 1 Vacuum Charge Heater
H-26	No. 2 Vacuum Charge Heater
H-27	PP Mol. Sieve Regeneration Heater
H-28	Active Butane Oxygenate Heater
H-34	No. 1 Reformer Stabilizer Reboiler
H-36	No. 2 Naphtha Hydrotreater Charge Heater
H-37	No. 2 Naphtha Hydrotreater Desulfurizer Reboiler
H-38	No. 2 Reformer Charge Heater (Charge, 3, 4 Inter-Heaters)
H-39	No. 2 Reformer Stabilizer Reboiler
H-40	No. 1 PDA Asphalt Heater (Asphalt-South)
H-41	No. 2 Crude Charge-Born Heater
H-42	HCU Recycle Heater
H-43	HCU Debutanizer Reboiler Heater
H-45	No. 1 Naphtha Hydrotreater Desulfurizer Reboiler
H-46	No. 1 Reformer No. 1 Interheater
H-48	Diesel Hydrotreater Charge Heater
H-6	DAGO Heater
H-64	No. 4 Hydrotreater Charge Heater
H-8	HCU Charge Heater (Petrochem North)
H-80	FCC Gas HDS Charge Heater
H-88	Acid Plant Startup Heater (Intermittent)
H-9	No. 2 Crude Heater (Petrochem South)

STORAGE TANKS:

EPN	Source Name
S-044	Tank 144
S-063	Tank 27
S-064	Tank 28
S-142	Tank 232
S-168	N Lube Tank (T-9)
S-173	3rd from S Lube Tank (T-3)

STORAGE TANKS:

EPN	Source Name
S-174	2nd from S Lube Tank (T-2)
S-175	S. Lube Tank (T-1)
S-179	Latex Tank 1
S-180	Latex Tank 2
S-184	Tank 940T1
S-195	Tank T101
S-196	Tank T102
S-197	Tank T109
S-199	Tank T115
S-227	Tank 5M1 (Slop Tank)
S-228	Tank 5M2 (Slop Tank)
S-233	Tank 940T2
S-234	Tank 200M5
ADDITIVETK	Biodiesel Additive Tank

PIPING COMPONENT FUGITIVES:

EPN	Source Name
F-1CRUDE	No. 1 Crude/Vacuum Unit Fugitives
F-1REF_HT	No. 1 Naphtha HDS/Reformer Fugitives
F-2CRUDE	No. 2 Crude/Vacuum Unit Fugitives
F-2REF_HT	No. 2 Naphtha HDS/Reformer Fugitives
F-4HT	No. 4 Naphtha Hydrotreater Fugitives
F-ALKY_PDA	Alky and PDA Unit Fugitives
F-ASPHALT	Asphalt Blending Fugitives
F-CAVERN	Storage Cavern Wellhead Fugitives
F-DESALT	Desalter Water Stripper
F-DHDSU	Diesel HDS Unit
F-ETNKFRM	East Tank Farm Fugitives
F-FCCU	FCCU Fugitives
F-GASBLD	Gasoline Blending Fugitives
F-GASPLT	Gas Plant Fugitives
F-GHDS	Gasoline HDS Fugitives
F-HCU	HCU Fugitives
F-HDS_GOF	GOF Fugitives
F-IOCTENE	Isooctene Fugitives
F-LPG	LPG Storage Fugitive
F-NBULKLD	Bulk Loading Terminal Fugitives
F-NTNKFRM	North Tank Farm Fugitives
F-ORU	Oil Recovery Unit Fugitives
F-PENEX	Penex Unit Fugitives
F-PUMPSTA	Pump Station Fugitives
F-RAILLOAD	Railroad Loading Rack Fugitives
F-RLE	Light Ends Unit Fugitives
F-SBULKLD	Bulk Loading Terminal Fugitives
F-SRU1	No. 1 SRU Fugitives
F-SRU2	No. 2 SRU Fugitives
F-SWS	Sour Water Stripper Fugitives

PIPING COMPONENT FUGITIVES:

EPN	Source Name
F-UNIFINER	Unifiner Unit Fugitives
F-WTNKFRM	West Tank Farm Fugitives
F-WWTP	Wastewater Treatment Plant Fugitives
F-MSAT	MSAT II Equipment Component Fugitives
F-MSATLOAD	MSAT II Loading Fugitives
F-FGR	Flare Gas Recovery System Fugitives
F-AMINE2	Amine System Fugitives
F-SUMP	Oily Water Sump Fugitives
F-ALKY	Alky Scrubber Fugitives

PRODUCT LOADING:

EPN	Source Name
L-11	Truck Loading Rack
L-2	Asphalt Truck Loading Rack (Asphalts)
L-7	Asphalt Railcar Rack
L-15 *	MSAT II Railcar Rack

* There are no product loading fugitive emissions from EPN L-15. All emissions are captured and controlled by the loading rack vapor combustor EPN FL-7.

** Pressurized liquified petroleum gas loading is an authorized activity.

PROCESS VENTS:

EPN	Source Name
V-13	Soda Ash Silo
V-14	Water Treater Lime Silo
V-16	SRU No. 2 Incinerator
V-17	FCC Catalyst Silo Vent
V-18	No. 1 Reformer Regeneration Vent
V-20	FCC Stack Vent
V-21	No. 2 Reformer Regeneration Vent
V-29	Sulfuric Acid Plant Vent
V-30	FCCU Spent Catalyst Roll Off
V-5	SRU No. 1 Incinerator

CAS SUMPS:

EPN	Source Name
CAS1	Oily Sump #7 CAS
CAS2	Crude Sump CAS
CAS3	Tank Farm CAS (150M2)
CAS4	Tank Farm CAS (150M1)
CAS5	Old Bulk Station Sump
CAS6	Laboratory Sump
CAS7	Turpin Sump
CAS8	WWTU V003 Swan Neck
CAS9	WWTU V004 Swan Neck
FGR-SUMP	Flare Gas Recovery Oily Water Sump

ENGINES:

EPN	Source Name
E-7	Unifiner (Clark) Compressor Engine

FLARES & OXIDIZERS:

EPN	Source Name
FL-1	No. 1 Main Refinery Flare
FL-3	FCCU Flare
FL-4	HCU Flare
FL-6	Wastewater Flare
FL-8	No. 2 Main Refinery Flare
FL-9	Brine Drum (pilot emissions only)(3)
OX-001	Wastewater Sludge Centrifuge Catalytic Oxidizer

VAPOR COMBUSTION UNITS:

EPN	Source Name
FL-7	Loading Rack Vapor Combustor

COOLING TOWERS:

EPN	Source Name
F-20	No. 1 Refinery Cooling Tower
F-47	No. 2 Refinery Cooling Tower
F-21	Gasoline Plant Cooling Tower

MISCELLANEOUS SOURCES:

EPN	SOURCE NAME
F-BRINE	Brine Pond Fugitives

MAINTENANCE:

EPN	Source Name
F-85 *	Painting
MSS_VAC	Vacuum Truck Emissions
MSS_FRAC	Frac Tank Emissions
MSS_PUMP	Pump Opening
MSS_HE	Heat Exchanger Opening
MSS_INCIN	Temporary Incinerator
MSS_ENG	Temporary Engine
MSS_Boiler	Temporary Boiler
MSS_AERO	Aerosol Paint
MSS_CHEM	Chemical Usage
MSS_NPNT	Non-aerosol Paint
MSS_ABRBLS *	Abrasive Blasting
MSS_WELD	Welding
MSS_INS	Insignificant Activities
MSS_REFSPLT	Reformate Splitter Depressure to Atmosphere
MSS_CAVERN	Salt Cavern Maintenance

MAINTENANCE:

EPN	Source Name
MSSH2VENT	Hydrogen Plant MSS Venting to Atmosphere

All Flares, All Storage Tanks (in VOC service <0.5 psia vapor pressure materials),
Piping Component Fugitive Areas (pump seal maintenance and process unit
equipment startup and shutdown emissions), and baghouse vents.

* Emissions from these EPNs are authorized individually. All other Maintenance EPN emissions are included in the Maintenance Emissions Caps.

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) The Brine Drum (FL-9) is a unique source and only pilot emissions were authorized. This source is not subject to continuous flow monitoring required for flares in the special conditions.

Dated: April 6, 2018

ATTACHMENT E
Permit Numbers 9708 and PSDTX861M3
Boiler and Heater Limits

EPN	Name	Short term firing rate (MMBtu/hr)	Annual Average Firing Rate (MMBtu/hr)	Maximum CO concentration (ppmvd)	Annual Average CO Concentration (ppmvd)	¹ Maximum NO _x Emission Factor, 3-hr average (lb/MMBtu)	Annual Ave NO _x Emission Factor, 365-day Rolling Average (lb/MMBtu)
B-10	No. 18 Boiler	223.77	223.77	177	83	0.039	0.039
B-11	No. 19 Boiler	223.77	223.80	100	100	0.039	0.039
B-12	600# Boiler	246.42	197.14	100	100	0.20	0.18
B-4	No. 11 Boiler	89.51	71.61	100	100	0.19	0.19
B-6	No. 13 Boiler	82.10	65.68	100	100	0.19	0.19
B-22	Boiler B-22A	92	92	100	50	0.015	0.01
	Boiler B-22B	133	133	100	50	0.015	0.01
B-8	No. 15 Boiler	156.64	125.36	100	100	0.06	0.06
B-9	No. 16 Boiler	156.69	125.36	100	100	0.084	0.06
H-1	No. 1 Crude Charge Heater	309.76	265.21	100	100	0.06	0.040
H-11	No. 2 Crude Charge Heater (Anderson)	92.20	77.35	100	100	0.042	0.042
H-13	Gas Oil Frac. Heater	40.0	40.0	100	100	0.1	0.1
H-14	Unifiner Charge Heater	26.52	26.52	100	100	0.098	0.098
H-15	No. 1 Hydrotreater Charge Heater	36.13	36.13	100	100	0.045	0.045
H-18	C.C.R. Charge Heater	359.13	274.05	100	38	0.050	0.044
H-2	No. 1 Vacuum Charge Heater	88.0	75.14	100	50	0.035	0.035
H-26	No. 2 Vacuum Charge Heater	92.34	81.77	100	100	0.044	0.044
H-27	"P/P" Mole Sieve Regeneration Heater	9.61	7.06	100	100	0.140	0.14
H-36	No. 2 Naphtha Hydrotreater Charge Heater	57.46	57.46	100	50	0.031	0.031
H-37	No. 2 Naphtha Hydrotreater Des2 Reboiler	63.98	36.47	100	100	0.100	0.100
H-38	#2 Reformer Charge Heater	348.1	246.3	100	87	0.039	0.039
H-39	#2 Reformer Stabilizer Reboiler Heater	28.90	24.31	100	100	0.120	0.120
H-40	P.D.A. Asph. Htr.	79.80	66.30	100	50	0.128	0.128

EPN	Name	Short term firing rate (MMBtu/hr)	Annual Average Firing Rate (MMBtu/hr)	Maximum CO concentration (ppmvd)	Annual Average CO Concentration (ppmvd)	¹ Maximum NO _x Emission Factor, 3-hr average (lb/MMBtu)	Annual Ave NO _x Emission Factor, 365-day Rolling Average (lb/MMBtu)
H-41	No. 2 Crude Charge Heater	309.41	309.41	100	38	0.053	0.053
H-42	Hydrocracker Recycle Heater	99.0	85.09	100	50	0.041	0.041
H-43	Hydrocracker "DEC4" Reboiler Heater	87.08	87.08	100	50	0.038	0.038
H-45	#1 Hydrotreater Charge Heater	70.10	70.10	100	50	0.038	0.038
H-46	C.C.R. Interheater	207.16	162.66	100	100	0.046	0.046
H-48	Diesel Hydrotreater Charge Heater	95.00	95.00	100	50	0.036	0.036
H-6	Dago Heater	28.29	28.29	100	100	0.120	0.120
H-64	No. 4 Hydrotreater Charge Heater	33.3	33.3	100	50	0.038	0.038
H-8	HCU Frac Charge Heater (Petrochem North)	88.4	88.4	100	100	0.053	0.053
H-80	FCC Gas HDS Charge Heater	98.40	98.40	100	100	0.031	0.031
H-9	No. 2 Crude Heater- (Petrochem South)	48	48	100	50	0.063	0.063

1 Heaters H-27, H-39, and H-6 are smaller than 40 MMBtu/hr and are not required to conduct stack testing; therefore, their NO_x emission factors are based on AP-42, and not on 3-hour average.

Dated April 6, 2018

Emission Sources - Maximum Allowable Emission Rates

Permit Number 9708 and PSDTX861M3

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MAINTENANCE EMISSIONS CAPS: (7)		VOC	4517.54	33.06
		NO _x	116.53	14.83
		CO	677.03	18.89
		SO ₂	1768.80	6.13
		H ₂ S	19.31	0.05
		HCl	4.00	< 0.01
		PM	2.02	0.44
		PM ₁₀	2.02	0.44
		PM _{2.5}	2.02	0.44
B-10	No. 18 Boiler	NO _x	8.73	38.22
		CO	28.08	57.67
		VOC	1.21	5.28
		SO ₂	5.18	10.15
		PM	1.67	7.30
		PM ₁₀	1.67	7.30
		PM _{2.5}	1.67	7.30
B-11	No. 19 Boiler	NO _x	8.73	38.22
		CO	15.86	69.47
		VOC	1.21	5.28
		SO ₂	5.18	10.15
		PM	1.67	7.30
		PM ₁₀	1.67	7.30
		PM _{2.5}	1.67	7.30

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
B-12	600# Boiler	NO _x	49.28	155.43
		CO	17.47	61.21
		VOC	1.33	4.66
		SO ₂	5.70	8.94
		PM	1.84	6.43
		PM ₁₀	1.84	6.43
		PM _{2.5}	1.84	6.43
B-22	Boiler B-22A & B-22B	NO _x	3.38	9.86
		CO	15.95	34.93
		VOC	1.21	5.31
		SO ₂	5.20	10.21
		PM	1.68	7.34
		PM ₁₀	1.68	7.34
		PM _{2.5}	1.68	7.34
		NH ₃	0.11	0.46
B-4	No. 11 Boiler	NO _x	17.01	59.59
		CO	6.35	18.32
		VOC	0.48	1.69
		SO ₂	2.07	3.25
		PM	0.67	2.34
		PM ₁₀	0.67	2.34
		PM _{2.5}	0.67	2.34
B-6	No. 13 Boiler	NO _x	15.60	54.66
		CO	5.82	17.59
		VOC	0.44	1.55
		SO ₂	1.90	2.98
		PM	0.61	2.14
		PM ₁₀	0.61	2.14
		PM _{2.5}	0.61	2.14

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
B-8	No. 15 Boiler	NO _x	9.40	32.94
		CO	11.10	38.92
		VOC	0.84	2.96
		SO ₂	3.62	5.69
		PM	1.17	4.09
		PM ₁₀	1.17	4.09
		PM _{2.5}	1.17	4.09
B-9	No. 16 Boiler	NO _x	13.16	32.94
		CO	11.11	38.92
		VOC	0.84	2.96
		SO ₂	3.62	5.69
		PM	1.17	4.09
		PM ₁₀	1.17	4.09
		PM _{2.5}	1.17	4.09
H-1	No. 1 Crude Charge Heater	NO _x	18.59	46.46
		CO	21.96	82.34
		VOC	1.67	6.26
		SO ₂	7.16	12.03
		PM	2.31	8.66
		PM ₁₀	2.31	8.66
		PM _{2.5}	2.31	8.66
H-11	No. 2 Crude Charge Heater (Anderson)	NO _x	3.87	14.23
		CO	6.54	24.01
		VOC	0.50	1.83
		SO ₂	2.13	3.51
		PM	0.69	2.52
		PM ₁₀	0.69	2.52
		PM _{2.5}	0.69	2.52

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-13	Gas Oil Frac. Heater	NO _x	4.00	17.52
		CO	2.84	12.42
		VOC	0.22	0.94
		SO ₂	0.93	1.81
		PM	0.30	1.31
		PM ₁₀	0.30	1.31
		PM _{2.5}	0.30	1.31
H-14	Unifiner Charge Heater	NO _x	2.60	11.38
		CO	1.88	8.23
		VOC	0.14	0.63
		SO ₂	0.61	1.20
		PM	0.20	0.87
		PM ₁₀	0.20	0.87
		PM _{2.5}	0.20	0.87
H-15	No. 1 Naphtha Hydrotreater Charge Heater	NO _x	1.63	7.12
		CO	2.56	11.22
		VOC	0.19	0.85
		SO ₂	0.84	1.64
		PM	0.27	1.18
		PM ₁₀	0.27	1.18
		PM _{2.5}	0.27	1.18
H-18	No. 1 Reformer Charge Heater	NO _x	17.96	52.81
		CO	25.45	33.37
		VOC	1.94	6.47
		SO ₂	8.31	12.43
		PM	2.68	8.94
		PM ₁₀	2.68	8.94
		PM _{2.5}	2.68	8.94

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-2	No. 1 Vacuum Charge Heater	NO _x	3.08	11.52
		CO	6.24	11.66
		VOC	0.47	1.77
		SO ₂	2.04	3.41
		PM	0.66	2.45
		PM ₁₀	0.66	2.45
		PM _{2.5}	0.66	2.45
H-26	No. 2 Vacuum Charge Heater	NO _x	4.06	15.76
		CO	6.55	25.39
		VOC	0.50	1.93
		SO ₂	2.14	3.71
		PM	0.69	2.67
		PM ₁₀	0.69	2.67
		PM _{2.5}	0.69	2.67
H-27	P/P Mole Sieve Regeneration Heater	NO _x	1.35	0.76
		CO	0.68	0.38
		VOC	0.05	0.03
		SO ₂	0.22	0.06
		PM	0.07	0.04
		PM ₁₀	0.07	0.04
		PM _{2.5}	0.07	0.04
H-28	Active Butane Oxygenate Heater	NO _x	1.16	5.07
		CO	0.84	3.67
		VOC	0.06	0.28
		SO ₂	0.27	0.54
		PM	0.09	0.39
		PM ₁₀	0.09	0.39
		PM _{2.5}	0.09	0.39

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-34	No. 1 Reformer Stabilizer Reboiler	NO _x	3.08	13.48
		CO	1.82	7.96
		VOC	0.14	0.61
		SO ₂	0.59	1.16
		PM	0.19	0.84
		PM ₁₀	0.19	0.84
		PM _{2.5}	0.19	0.84
H-36	No. 2 Naphtha Hydrotreater Charge Heater	NO _x	1.78	7.80
		CO	4.07	8.92
		VOC	0.31	1.36
		SO ₂	1.33	2.61
		PM	0.43	1.88
		PM ₁₀	0.43	1.88
		PM _{2.5}	0.43	1.88
H-37	No. 2 Naphtha Hydrotreater Desulfurizer Reboiler	NO _x	6.40	15.97
		CO	4.54	11.32
		VOC	0.34	0.86
		SO ₂	1.48	1.65
		PM	0.48	1.19
		PM ₁₀	0.48	1.19
		PM _{2.5}	0.48	1.19
H-38	#2 Reformer Charge Heater	NO _x	13.58	42.07
		CO	24.67	66.53
		VOC	1.88	5.82
		SO ₂	8.05	11.17
		PM	2.59	8.04
		PM ₁₀	2.59	8.04
		PM _{2.5}	2.59	8.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-39	#2 Reformer Stabilizer Reboiler Heater	NO _x	3.47	12.78
		CO	2.05	7.55
		VOC	0.16	0.57
		SO ₂	0.67	1.10
		PM	0.22	0.79
		PM ₁₀	0.22	0.79
		PM _{2.5}	0.22	0.79
H-40	No. 1 PDA Asphalt Heater (Asphalt-South)	NO _x	10.21	37.17
		CO	5.66	10.29
		VOC	0.43	1.57
		SO ₂	1.85	3.01
		PM	0.59	2.16
		PM ₁₀	0.59	2.16
		PM _{2.5}	0.59	2.16
H-41	No. 2 Crude Charge-Born Heater	NO _x	16.40	71.83
		CO	21.93	36.49
		VOC	1.67	7.31
		SO ₂	7.16	14.03
		PM	2.31	10.10
		PM ₁₀	2.31	10.10
		PM _{2.5}	2.31	10.10
H-42	Hydrocracker Recycle Heater	NO _x	4.06	15.28
		CO	7.02	13.21
		VOC	0.53	2.01
		SO ₂	2.29	3.86
		PM	0.74	2.78
		PM ₁₀	0.74	2.78
		PM _{2.5}	0.74	2.78

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-43	HCU Debutanizer Reboiler Heater	NO _x	3.31	14.49
		CO	6.17	13.52
		VOC	0.47	2.06
		SO ₂	2.01	3.95
		PM	0.65	2.84
		PM ₁₀	0.65	2.84
		PM _{2.5}	0.65	2.84
H-45	No. 1 Naphtha Hydrotreater Desulfurizer Reboiler	NO _x	2.66	11.67
		CO	4.97	10.88
		VOC	0.38	1.66
		SO ₂	1.62	3.18
		PM	0.52	2.29
		PM ₁₀	0.52	2.29
		PM _{2.5}	0.52	2.29
H-46	No. 1 Reformer No. 1 Interheater	NO _x	9.53	32.77
		CO	14.68	50.50
		VOC	1.12	3.84
		SO ₂	4.79	7.38
		PM	1.54	5.31
		PM ₁₀	1.54	5.31
		PM _{2.5}	1.54	5.31
H-48	Diesel Hydrotreater Charge Heater	NO _x	3.42	14.98
		CO	6.73	14.74
		VOC	0.51	2.24
		SO ₂	2.20	4.31
		PM	0.71	3.10
		PM ₁₀	0.71	3.10
		PM _{2.5}	0.71	3.10

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-6	Dago Heater	NO _x	3.39	14.87
		CO	2.01	8.78
		VOC	0.15	0.67
		SO ₂	0.65	1.28
		PM	0.21	0.92
		PM ₁₀	0.21	0.92
		PM _{2.5}	0.21	0.92
H-64	No. 4 Hydrotreater Charge Heater	NO _x	1.27	5.54
		CO	2.36	5.17
		VOC	0.18	0.79
		SO ₂	0.77	1.51
		PM	0.25	1.09
		PM ₁₀	0.25	1.09
		PM _{2.5}	0.25	1.09
H-8	HCU Charge Heater (Petrochem North)	NO _x	4.69	20.52
		CO	6.27	27.45
		VOC	0.48	2.09
		SO ₂	2.04	4.01
		PM	0.66	2.88
		PM ₁₀	0.66	2.88
		PM _{2.5}	0.66	2.88
H-80	FCC Gas HDS Charge Heater	NO _x	3.05	13.36
		CO	6.98	30.55
		VOC	0.53	2.32
		SO ₂	2.28	4.46
		PM	0.73	3.21
		PM ₁₀	0.73	3.21
		PM _{2.5}	0.73	3.21

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-88	Acid Plant Startup Heater (Intermittent)	NO _x	0.79	3.46
		CO	0.40	1.75
		VOC	0.03	0.13
		SO ₂	0.13	0.26
		PM	0.04	0.18
		PM ₁₀	0.04	0.18
		PM _{2.5}	0.04	0.18
H-9	No. 2 Crude Heater (Petrochem South)	NO _x	3.02	13.25
		CO	3.40	7.45
		VOC	0.26	1.13
		SO ₂	1.11	2.18
		PM	0.36	1.57
		PM ₁₀	0.36	1.57
		PM _{2.5}	0.36	1.57
F-20	No. 1 Refinery Cooling Tower	VOC (5) (6)	3.52	15.40
		Benzene	0.21	0.92
		PM	3.06	13.41
		PM ₁₀	0.51	2.24
		PM _{2.5}	0.01	0.02
F-21	Gasoline Plant Cooling Tower	VOC (5) (6)	2.90	12.69
		Benzene	0.17	0.76
		PM	2.54	11.13
		PM ₁₀	0.42	1.83
		PM _{2.5}	< 0.01	0.02
F-47	No. 2 Refinery Cooling Tower	VOC (5) (6)	2.28	9.97
		Benzene	0.14	0.59
		PM	2.16	9.48
		PM ₁₀	0.30	1.29
		PM _{2.5}	< 0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
E-7	Unifiner Engine (Clark)	NO _x	4.56	19.98
		CO	0.08	0.36
		VOC	0.17	0.76
		SO ₂	0.01	0.01
		PM	0.07	0.29
		PM ₁₀	0.07	0.29
		PM _{2.5}	0.07	0.29
FL-9	Brine Degas Drum	NO _x	8.21	0.99
		CO	16.38	1.98
		VOC	30.15	5.52
FL-6	Wastewater Flare	NO _x	2.09	4.59
		CO	10.66	23.38
		VOC	5.00	10.94
		SO ₂	2.03	1.33
		H ₂ S	0.02	0.01
		NH ₃	< 0.01	< 0.01
Combined Compliance Short Term and Annual Caps for Flares FL-1, FL-3, FL-4, and FL-8 (8)		NO _x	40.46	34.31
		CO	210.06	190.66
		VOC	352.09	179.46
		SO ₂	19.05	15.69
		H ₂ S	6.07	0.27
FGR-SUMP	FGR Oily Water Sump	VOC	0.03	0.07
FL-7	Loading Rack Vapor Combustor	NO _x	6.39	8.83
		CO	15.73	21.89
		VOC (6)	19.23	9.71
		Benzene	6.87	1.38
		SO ₂	0.09	0.02
		PM	0.26	0.17
		PM ₁₀	0.26	0.17
		PM _{2.5}	0.26	0.17
L-2	Asphalt Truck Loading Rack	VOC	7.49	14.13

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
L-11	Railcar/ Truck Loading Rack	VOC (6)	10.48	10.20
		Benzene	0.32	0.32
L-7	Asphalt Railcar Rack	VOC	6.97	12.82
V-29	Sulfuric Acid Plant Vent	SO ₂	1.68	7.36
		H ₂ SO ₄	0.07	0.32
V-20	F.C.C.U. (Fluidized Catalytic Cracking Unit)	NO _x	220.11	163.36
		CO	37.80	93.07
		VOC	10.55	38.19
		SO ₂	459.69	138.69
		PM	80.00	294.02
		PM ₁₀	80.00	294.02
		PM _{2.5}	80.00	294.02
		NH ₃	40.74	146.00
		H ₂ SO ₄	12.40	41.98
		Hydrogen Cyanide	25.20	108.54
V-18	No. 1 Reformer Cat Regenerator Vent	CO	3.27	14.31
		VOC	0.61	2.68
		HCl	0.15	0.67
		Cl ₂	0.04	0.19
V-21	No. 2 Reformer Cat Regenerator Vent	CO	70.00	3.36
		VOC	0.03	< 0.01
		HCl	1.06	0.05
		Cl ₂	0.31	0.01
V-13	Soda Ash Silo	PM	0.09	0.02
		PM ₁₀	0.09	0.02
		PM _{2.5}	0.09	0.02
V-14	Lime Silo Vent	PM	0.09	0.02
		PM ₁₀	0.09	0.02
		PM _{2.5}	0.09	0.02
V-17	FCC Catalyst Silo Vent	PM	0.01	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
V-5	SRU No. 1 Incinerator	NO _x	0.40	1.75
		CO	1.87	8.20
		VOC	0.19	0.82
		SO ₂	10.69	46.84
		H ₂ S	0.11	0.50
		PM	0.38	1.67
		PM ₁₀	0.38	1.67
		PM _{2.5}	0.38	1.67
V-16	SRU No. 2 Incinerator	NO _x	0.56	2.45
		CO	13.66	59.82
		VOC	0.20	0.87
		SO ₂	10.96	48.01
		H ₂ S	0.12	0.51
		PM	0.84	3.68
		PM ₁₀	0.84	3.68
		PM _{2.5}	0.84	3.68
V-30	FCCU Spent Catalyst Roll Off Boxes	PM	< 0.01	< 0.01
		PM ₁₀	< 0.01	< 0.01
		PM _{2.5}	< 0.01	< 0.01
S-044	Tank 144	Caustic	0.01	0.01
S-142	Tank 232	Caustic	0.01	0.01
CARBON CAN	Carbon Canister System Fugitives (CAS1 – CAS9)	VOC	3.24	5.68
F-1CRUDE, F-1REF_HT, F-2CRUDE, F-2REF_HT, F-4HT, F-HCU, F-ALKY_PDA, F-ALKY, F-ASPHALT, F-CAVERN, F-FGR, F-DESALT, F-DHDSU, F-ETNKFRM, F-FCCU, F-GASBLD, F-GASPLT, F-GHDS, F-HDS_GOF, F-LPG, F-IOCTENE, F-NBULKLD, F-NTNKFRM, F-ORU, F-PENEX, F-PUMPSTA, F-RAILLOAD, F-RLE, F-SBULKLD, F-SRU1, F-SRU2, F-SWS, F-UNIFINER, F-WTNKFRM, F-MSAT, F-WWTP, F-AMINE2, F-MSATLOAD, F-SUMP	Cap for Fugitives	VOC (5) (6)	151.27	662.17
		Benzene (5)	0.99	4.31
		H ₂ S (5)	0.24	1.02
		NH ₃ (5)	0.03	0.14

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
S-063, S-064, S-168, S-173, S-174, S-175, S-179, S-180, S-184, S-195, S-196, S-197, S-199, S-227, S-228, S-233, S-234	Cap for Storage Tanks	VOC (6)	20.01	11.87
		Benzene	0.01	0.02
OX-001	Wastewater Sludge Centrifuge Catalytic Oxidizer	NO _x	< 0.01	< 0.01
		CO	0.34	1.48
		VOC	0.03	0.11
		SO ₂	1.25	5.49
		PM	< 0.01	< 0.01
		PM ₁₀	< 0.01	< 0.01
		PM _{2.5}	< 0.01	< 0.01
ADDITIVETK	Biodiesel Additive Tank	VOC	5.03	1.68
F-85	Painting	VOC	4.25	1.26
F-BRINE	Brine Pond Fugitives	VOC (5)	23.74	2.80
MSS_ABRBLS	Abrasive Blasting Operation	PM	0.54	0.37
		PM ₁₀	0.07	0.05
		PM _{2.5}	< 0.01	< 0.01

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC
 - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO_x
 - total oxides of nitrogen
- SO₂
 - sulfur dioxide
- PM
 - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀
 - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5}
 - particulate matter equal to or less than 2.5 microns in diameter
- CO
 - carbon monoxide
- H₂S
 - hydrogen sulfide
- H₂SO₄
 - sulfuric acid
- HCl
 - hydrogen chloride
- NH₃
 - ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) VOC rate includes Benzene emissions.
- (7) See Attachment D for a list of sources included in the Maintenance Emissions Cap.
- (8) The caps for flares include emissions associated with the flare gas recovery maintenance.

Date: April 6, 2018